Indian Journal of Pure & Applied Physics

Volume 8, 1970

U. of ILL. LIBRARY
NOV 3 0 1971
CHICAGO CIRCLE



	PAGE		PAGI
A-X band system: Analysis of the A-X band system		Alcohols: Dielectric behaviour of alcohols in benzene	
of the SrI molecule	855	solution in the microwave frequency region	107
AgBr: Polaron mobility studies in AgBr, AgCl &	694	ALFHEIM, I. see CYVIN, S. J Alkali halide crystals: Influence of the annihilating	629
KBr at finite temperatures AgCl: Polaron mobility studies in AgBr, AgCl &	074	dislocations on piezo-optic birefringence in some	
KBr at finite temperatures	694	alkali halide crystals	90
Absorption: Light absorption in pyramidal XO ₃ ions	100	On a relation between centre frequency & forma-	0.50
in state of solution	199	tion energy of vacancies in alkali halide crystals Alkali halides: Effect of a short-range three-body	372
F ₂ -layer	211	interaction on the third order elastic constants of	
Absorption of microwaves: Effect of external dc electric	202	alkali halides	307
field on absorption of microwaves in plasma Absorption spectra: Effect of chlorination in the near	383	Alkali hydride molecules: Modified form of Rittner's potential function for alkali hydride molecules	139
ultraviolet absorption spectra of 9,10-anthraquinone	641	Alkali sulphate crystals: Colour centre studies in	15;
Electronic absorption spectra of 2- & 8-chloro-	450	certain alkali sulphate crystals: Part III - Effect	
quinoline vapours Infrared absorption spectrum of N-acetonyl	178	of optical & thermal bleaching on the paramagnetic centres	252
quinolinium iodide	182	All-pass phase shifters: Dual input all-pass phase	434
Infrared absorption spectrum of benzoyl chloride	116	shifters	46
Infrared absorption spectra of methylstyrenes &	725	Alloys: Calculation of physical parameters of binary	704
p-methoxystyrene Infrared absorption spectra of some quinoline	123	alloys from their elastic constants Effective atomic numbers in alloys for incoherent	/04
derivatives	54	scattering of gamma rays	845
Near ultraviolet absorption spectrum of 2-bromo	182	Ambient atmospheres: Rise & decay & spectral	
ethyl benzene	102	characteristics of ZnO: O photoconductor: Effects of temperature & pressure & nature of ambient	
bromoaniline in the vapour phase	730	atmospheres	716
Near ultraviolet absorption spectra of deuterated		Aminopyridines: Near infrared spectra of 2-, 3- &	470
& non-deuterated aminopyridines in vapour phase	820	4-aminopyridines & their deuterated analogues Near ultraviolet absorption spectra of deuterated	479
Near ultraviolet absorption spectra of 3,4- &		& non-deuterated aminopyridines in vapour	
2.6-dichloroanilines	764	phase	820
Near ultraviolet absorption spectrum of 2,4- dimethylphenol vapour	239	Ammini Amma, R.: Raman & infrared spectra of 2,5-dichlorotoluene	115
Optical absorption spectra of diluted Cu(KSO ₄) ₂ .		see Baruah, G. D 23	9, 761
6H ₂ O single crystals diluted with Zn(KSO ₄) ₉ .6H ₂ O	345	Ammonium halides: Lattice dynamics of ammonium	
Thermal emission & absorption spectra (F-X system) of CuCl molecule	759	Amplifier: Analysis of a composite transistor voltage	376
Ultraviolet absorption spectrum of benzoyl chloride	,	amplifier circuit	33
in vapour phase	856	Analogues of 2-, 3- & 4-aminopyridines: Near infrared	
Absorption studies: A comparative assessment of the effectiveness of different diffuse reflectance para-		spectra of 2-, 3-&4-aminopyridines & their deuterated analogues	479
meters in absorption studies	362	Angular distribution of neutrons from deuteron-	77.
N-Acetonyl quinolinium iodide: Infrared absorption	100	bombarded lithium	108
ACHAREKAR, M. A. see CHIPLONKAR, V. T	182 493	Angular force models: Lattice dynamics of silver on the basis of angular force models	334
Acoustic waves: Variation of attenuation of acoustic	,,,,	ANIL KUMAR: Electron-phonon interaction in semi-	33
waves through plasma with ion-plasma frequency	86	conductors	44
Activation energy: Estimation of activation energy	748	Anisotropy of ionospheric irregularities: Effect of	
for the dissolution of NaCl crystals Adiabatic compressibility: A relation between adia-	710	magnetic activity on the drift & anisotropy of ionospheric irregularities	537
batic compressibility & viscosity of organic liquids		Anjaneyulu, C. see Satyanarayana Sarma, M	523
& molten electrolytes	111 356	Ansari, D. J.: Infrared absorption spectra of methyl-	725
ADITYA, P. K. see Puri, R. K After-glow: Studies on the after-glow of water vapour	806	styrenes & p-methoxystyrene Anthracene: Conductivity measurements from the	14.
AGARWAL, D. C.: Deviative absorption in the F2-layer	211	study of dielectric loss in anthracene	465
Effect of smallness of values of parameters Z_i &		9,10-Anthraquinone: Effect of chlorination of the near	641
Z_{ε} on the complex refractive index of the ionosphere for vlf propagation	387	ultraviolet absorption spectra of 9,10-anthraquinone Antimony: Intramolecular force field & chemical	
On the wave polarization of magnetoionic theory	436	bonding in trihalides of antimony & bismuth	367
AGARWAL, K. C. see SAKSENA, B. D	40	Antimony single crystals: Growth features on the	236
Age determination of sands: Age determination of size fractions of monazite & zircon sands	103	cleavage face of antimony single crystals Apatites, Indian: Fission track ages of some Indian	200
Ages of some Indian apatites: Fission track ages of		apatites	397
some Indian apatites	397	Apodizing screen: Performance of an optical system	
AGRAWAL, M. P.: Formation factor of unconsolidated porous medium	742	using a circular aperture with an apodizing screen illuminated by partially coherent light	780
AGRAWAL, V. D.: NMR study of pyrene solid	26	APTE, A. S. see SANKARSHANA MURTHY, M. N	473
AHMED, MD. IQHBAL: Study of lower ionospheric		Aromatic hydrocarbon crystalline solids: Refractivities	
absorption of cosmic radio noise power on 28.6 MHz at Waltair	526	of vapours of some aromatic hydrocarbon crystalline solids	828
Alcohol structure: A new model for the alcohol		ARULDHAS, G. see Unnikrishnan Nayar, V	840
structure to explain temperature variation of the	217	Arunsingh: Lattice dynamics of Mg ₂ Sn	462
dielectric constants	316	ASHOK, J. see RAMAKRISHNARAO VETURY	207

	PAGE		PAGE
ASHOK KUMAR see SHARAN, B	135	Raman & infrared spectra of 2,6-diamino-	
Use of particle track technique in studies on		pyridine	761
flames see Jaiswal, V. K	42	Vibrational spectra of mesidine & pseudocumidine	678
Asymptotically exact solution: On asymptotically	293	Basu, B. N. see Chakraborti, N. B Beam-splitter: Polarizing effect of beam-splitter in	1
exact solution of Thirring's model	121	two-beam interferometers	. 814
ATA time signals: On the accuracy of ATA time		Benzene solution: Dielectric behaviour of alcohols in	
signals	503	benzene solution in the microwave frequency	400
Atmosphere: Concentration of NaO & NaH molecules	497	region	107
in the earth's upper atmosphere Electromagnetic probing of the atmosphere:	497	hetero-substituted benzenes	691
The mesosphere & the lower thermosphere	507	Semi-empirical PPP-SCF-MO-CI calculations on	0/1
Electromagnetic probing of the atmosphere:		some ĥomo-substituted benzenes	70
the upper ionosphere	516	Benzonitrile discharge: Determination of effective	
Atomic numbers, effective: Effective atomic numbers in allovs for incoherent scattering of gamma rays	845	vibrational temperature of CN violet band system in benzonitrile discharge	680
Atomization of liquid points: Electrostatic atomization	073	Benzophenone: Infrared spectra of benzophenone in	000
of liquid points	739	the solid state diphenyl group	100
Atoms, neutral: A new semiempirical formula for		Benzoyl chloride: Infrared absorption spectrum of	
ionization cross-section of neutral atoms by electron	843	benzoyl chloride Ultraviolet absorption spectrum of benzoyl	116
impact Attenuation: Effect of lower ionosphere on attenuation		chloride in vapour phase	856
& phase characteristics of elf & vlf waves		Beta decay: Validity of \$ approximation of the 1400	000
Australasian zone: F-region disturbances in the		keV beta decay in ¹⁴⁸ Ce	365
Australasian zone during IGY-IGC	551	BHAGAVAT, G. K.: Effect of external de electric field	202
AVADHANLU, M. N. see GOPALAKRISHNA, C. V. S. S. V. AWASTHI, O. N. see GULSHAN RAI	178 - 811	on absorption of microwaves in plasma Bhamambal, P. see Venkateswarld, K	383 180
AWASINI, O. IV. SEE GULSHAN ICAL	011	BHANDARI, C. M.: Magnetic behaviour of a Heisenberg	100
		system of three-level ions	747
R ³ van de la landa ef		BHANDARI, R. C. see AGRAWAL, M. P	742
$B^{\Sigma_u-X^3\Sigma_g}$ system: Isotope shift in the bands of $B^3\Sigma_u-X^3\Sigma_g$ system of S_2 molecule	52	See Jain, S. C Bhatia, V. S. see Sood, P. M	673
B-X band system: The $B-X$ band system of the GeCl	32	BHATIA, V. S. see SOOD, P. M BHATNAGAR, C. S. see KHARE, M. L	406 700
molecule	825	see Sharma, L. N	500
BaF molecule: Franck-Condon factors, r-centroids &		BHATNAGAR, M. L. see Joshi, Dayashankar	428
intensity distributions in some band systems of BaF	423	BHATT, B. C. see PANT, D. D	505
molecule		Bhatt, V. P.: Growth features on the cleavage face of antimony single crystals	236
etch pits on the (001) surface of BaF ₂ .BaCl ₂		BHATTACHARYA, A. K. see Roy, C. L	56
Bal molecule: Emission spectrum of Bal molecule		BHATTACHARYA, PURABI: Energy gap in nuclear matter	
(BaPb) (NbZr) O ₃ , tetragonal: Ferroelectric properties	707	& velocity-dependent nucleon-nucleon interaction	302
of tetragonal (BaPb)(NbZr)O ₃ BaS: Bi phosphors: Phosphorescence decay of BaS: Bi	707	BHATTACHARYA, T. K.: On the Gunn-domain motion in non-uniform field	758
phosphors	649	BHATTACHARYYA, J. C.: Ionospheric indication of	750
Bi activated CaS phosphors: Effect of didymium on		short-time solar activity variations	544
the luminescence of CaS: Bi phosphors	320	BHAWALKAR, D. D.: Temporal behaviour of light	0.40
Bi ₂ molecule: True potential energy curves for the bands of the Bi ₂ molecule		emission from gallium arsenide injection lasers Bhawalkar, D. R.: Decay & thermoluminescence of	849
BiCl molecule: Dissociation energy, Franck-Condon		CaS phosphors activated with Zr & Mn	476
factors & r-centroids of diatomic BiCl molecule	614	see Malhotra, B. R	117
BiSe molecule: A new band system of BiSe molecule		see Mor, S. L	320
in the visible region BADRINARAYANAN, S.: Impurity diffusion of rare earth	51	Bhujle, V. V.: Near ultraviolet absorption spectra of deuterated & non-deuterated aminopyridines in	
	324	vapour phase	820
metals in copper	169	vapour phase see Padhye, M. R. Bhutra, M. P. see Tandon, S. P. 18, 5	479
BAJPAI, R. P. see SHARAN, B 1	35, 331	BHUTRA, M. P. see TANDON, S. P 18,	54, 182
Bajwa, G. S.: On the stability condition of flute instability in an inhomogeneous plasma		Bismuth: Development of unusual etch pits in bismuth	670
BALKRISHNA: Ionization potentials of some alternant		Effect of didymium on the luminescence of CaS:	672
hydrocarbons from a simplified version of Pople's		Bi phosphors	320
SCF-MO theory	750	Effects of some parameters on facet formation	
Band limit frequencies: Effect of band limit frequencies over the most probable duration between zero		in bismuth Intramolecular force field & chemical bonding in	852
crossings	269	trihalides of antimony & bismuth	367
Band structure calculations: Suitability of molecular		BISWAS, A. B. see CHINCHOLKAR, V. S.	707
orbitals for band structure calculations: Empirical		BISWAS, S. C. see DE, M	8
correlation of molecular properties Band system, A-X: A-X band system of PbCl in the	788	Bleaching: Colour centre studies in certain alkali	
visible region	114	sulphate crystals: Part III — Effect of optical & thermal bleaching on the paramagnetic centres	252
Band system, CN violet: Determination of effective		Bogoliubov (Jr), N. N.: On asymptotically exact	232
vibrational temperature of CN violet band system		solution of Thirring's model	121
in benzonitrile discharge	680	Bond distances: Force constants & bond distances for	100
Band systems: Franck-Condon factors, r-centroids & intensity distributions in some band systems of		the U-O bond of uranyl salts Bond orbitals: A new look at the concept of the	108
BaF molecule	423	hybridization of bond orbitals	15
BANSIGIR, K. G. see HARI BABU, V	748	2-Bromo ethyl benzene: Near ultraviolet absorption	
see Krishna Murty, V. G	90	spectrum of 2-bromo ethyl benzene	182
BAPU RAO, P. see GOPALA RAO, R. V BARUA, K. C.: Thin film structure of In ₂ Te ₃	2=0	p-Bromoaniline: Near ultraviolet absorption spectrum of p-bromoaniline in the vapour phase	720
BARUAH, G. D.: Near ultraviolet absorption spectrum of	230	Bromobenzaldehydes, o-, m- & p-: Raman spectra of	730
2,4-dimethylphenol vapour	239	o-, m- & p-bromobenzaldehydes	432

	PAGE		PAG
CaBr molecule: Ultraviolet emission spectrum of		CHATTERJEE, U. K.: Day-time optical communication	
CaBr molecule	118	using a gallium arsenide laser	48
CaF ₃ , natural: Thermoluminescence spectrum of a		see Bhawalkar, D. D	84
sample of natural CaF ₂ powder	280	CHAUDHRY, A. K.: Isotope shifts in the bands of	
CaS phosphors: Decay & thermoluminescence of CaS phosphors activated with Zr & Mn	476	$B^3\Sigma_u - X^3\Sigma_g$ system of S_2 molecule	5:
CaS: Ag phosphors: Electroluminescence of CaS: Ag	470	Chaudhuri, B. see Hannan, S. S Chelates EDTA metal: Ultrasonic method of detar	11:
phosphors	294	Chelates, EDTA-metal: Ultrasonic method of determining ionic interaction in certain ethylene diamine	
CaS: Bi phosphors: Effect of didymium on the lumi-		tetraacetate acid (EDTA)-metal chelates	420
nescence of CaS: Bi phosphors	320	Chemical bonding: Intramolecular force field &	
Cas (Zr. Di) phosphors: Phosphorescence spectra of	117	chemical bonding in trihalides of antimony &	
CaS (Zr, Di) phosphors	117	bismuth	36'
CdBr molecule	240	CHINCHOLKAR, V. S.: Ferroelectric properties of	70
¹⁴⁸ Ce: Validity of ξ approximation of the 1400 keV		tetragonal (BaPb) (NbZr)O ₃ CHIPLONKAR, V. T.: Effect of ethyl alcohol impurity	70
beta decay in ¹⁴³ Ce	365	on the rf conductivity of a low temperature gas	
CF ₃ COOH-CH ₃ COOH bimolecule: Microwave dis-	712	discharge plasma	49:
persion in CF ₃ COOH-CH ₃ COOH bimolecule CF ₂ N ₂ : Molecular constants of difluorodiazirine	713	Chloral: Dielectric relaxation studies in chloral at	
(CF_2N_2)	142	X-band microwave frequency	84
35Cl: Nuclear quadrupole interactions of 35Cl in	117	Chlorination: Effect of chlorination on the near ultra-	61.
K _o CuCl ₁ 2H _o O	754	violet absorption spectra of 9,10-anthraquinone α-Chloronaphthalene: Infrared spectra of α-chloro-	64
Temperature dependence of 35Cl pure quadrupole	0.55	naphthalene, α-naphthol, β-naphthol & β-methyl-	
resonance frequencies in 3,4-dichloroaniline	255	naphthalene	348
CN violet band system: Determination of effective vibrational temperature of CN violet band system in		2-Chloro-4-nitroaniline: Infrared spectra of 2-chloro-4-	
benzonitrile discharge	680	nitroaniline & 4-chloro-2-nitroaniline	682
Co ₃ Sn ₂ , ordered phase of: Crystal symmetry & cell		4-Chloro-2-nitroaniline: Infrared spectra of 2-chloro-4-nitroaniline & 4-chloro-2-nitroaniline	682
parameters of the ordered phase of Co ₃ Sn ₂	363	Chloroquinoline vapours: Electronic absorption spectra	00,
134Cs: Gamma-gamma-gamma directional correlation	101	of 2- & 8-chloroquinoline vapours	178
studies from the decay of 134Cs	401	2- & 8-Chloroquinolines: Infrared spectra of 2- & 8-	
CuCl molecule: Thermal emission & absorption spectra (F-X system) of CuCl molecule	759	chloroquinolines	762
Cu(KSO ₄) ₂ .6H ₂ O single crystals: Optical absorption		Chlorostyrenes, isomeric: Raman spectra of isomeric	4.4.
spectra of diluted Cu(KSO ₄) ₂ .6H ₂ O single crystals		chlorostyrenes	146
diluted with Zn(KSO ₄) ₂ .6H ₂ O	345	chlorotrifluoroethylene	634
Cadmium(II): Raman & infrared spectra of some		Chloroxylenes: Infrared spectra of some chloroxylenes	- 00
complexes of thiourea with zinc(II), cadmium(II)	338	in the liquid state	483
& mercury(II)	220	CHOCKALINGAM, (Mrs) MARY JULIANA: Studies on	
tive cells of cadmium sulphate	744	sintered photoconductive cells of cadmium sulphate	744
Cadmium sulphide: Low frequency oscillations in thin	- 1	Choudhury, A. K. see Roy, B. C Choudhury, N. K. D.: Low frequency noise of tran-	217
platelets of cadmium sulphide	662	sistors at low current	656
Carbon disulphide: Significant structure theory &		Prediction of rise-time in transistors	165
evaluation of thermodynamic properties of liquid carbon disulphide	451	Chromium oxide single crystal: Structure-sensitive	
Carbon tetrachloride: Heat transfer from electrically		magnetoelectric effect in chromium oxide single	
heated nichrome wire through boiling carbon tetra-		crystal as studied by dielectric constant technique	755
chloride	854	Circular aperture: Diffraction images of periodic triangular wave objects formed by a circular aperture	
Carbonyl cyanide: Force field & Coriolis coupling	840	with Straubel pupil function	697
coefficients of carbonyl cyanide Carbonyl sulphide: Theoretical evaluation of micro-	070	Performance of an optical system using a circular	
wave spectral line-width parameters	245	aperture with an apodizing screen illuminated	
Cathode, cold: A thin film cold cathode	36	by partially coherent light	780
Cavitation bubbles: Growth of cavitation bubbles in	200	Clapp transistor oscillator, modified: Starting condition & the frequency of oscillation of the modified	
water under-saturated with air	289	Clapp transistor oscillator	110
Cell model: Extension of Kirkwood's analysis of cell model to intermediate density case	676	Classical systems, one- & two-dimensional: On the	
Cell parameters: Crystal symmetry & cell parameters	0,0	impossibility of crystalline ordering in one- & two-	
of the ordered phase of Co ₃ Sn ₂	363	dimensional classical systems	64
Centimetre solar bursts: Centimetre & decimetre solar		Cleavage face of single crystals: Growth features on	236
bursts in relation to the phase of the S-component	726	the cleavage face of antimony single crystals Clock rate difference: Calculation of clock rate dif-	230
of solar radio emission	736	ference on the basis of Kerr metric of a rotating	
of cesium	677	body	668
CHAKRABORTI, N. B.: Nonlinear mixing in a double		Cobalt: Lattice dynamical study of cobalt	135
beam device under Eulerian approximation in the		Coherent (partially) light: Performance of an optical	
one-dimensional case	1	system using a circular aperture with an apodizing screen illuminated by partially coherent light	780
CHAKRABORTY, A. K.: Polarizing effect of beam-	814	Colour centre studies in certain sulphate crystals:	760
splitter in two-beam interferometers Chakravarry, S. C.: Lunar oscillations in the iono-	ULT	Part III — Effect of optical & thermal bleaching on	
spheric absorption	541	the paramagnetic centres	252
CHAKRAVORTY, J. N.: Crystal structure of diphenyl-	0.00	Communication using a laser: Day-time optical com-	400
amine by powder photograph	850	munication using a gallium arsenide laser	488
CHANNAPPA, J. H.: Electronic gj values of palladium	172	Complexes: ESR in copper anti-pyrene perchlorate complex	817
using RS, jj & intermediate coupling schemes Charge density: A hypothesis to explain observed	112	complex Optical absorption of the V ³⁺ ion in complexes	317
characteristics of charge density in magneto-		of D3h symmetry	473
electrets	700	Raman & infrared spectra of some complexes	
Charge identification of nuclear tracks in photographic		of thiourea with zinc(II), cadmium(II) &	1
emulsions	652	mercury(II)	338

			- 44012
Compressibility parameter: Relation between com-		DAS, K. C. see GHOSH, APARNA	685
pressibility & solubility parameters of some non-		Das Gupta, M. K.: Centimetre & decimetre solar bursts	
polar & nearly non-polar liquids	185	in relation to the phase of the S-component of solar	
Concave grating: A new mounting of concave grating	201	radio emission	736
Conductivity measurements from the study of di- electric loss in anthracene	465	Recurrence of 10.7 cm solar flux & of sunspot	774
Contact potential photovoltaic effect in silver sulphide	703	DASTIDAR, P. R.: Times of current rise & current	.734
layers	295	decay in Gunn oscillations	49
Control systems: Feedback error correlation measure	1	Datta, G.: Discrimination of a phase-locked oscillator	
as a performance index for a class of control systems	160	against interfering tones	223
Copolymeric systems: Phase transition in copolymeric	1.00	Simple, accurate & automatic method of measur-	
systems	842	ing high resistances based on phase-locking	97
Copper: Copper & zirconium activated ZnS phos-	261	DATTA, R. N.: Enhancement of Es & Es-multiples	540
phors: Electroluminescence of ZnS: Cu, Zr phosphors Impurity diffusion of rare earth metals in copper	364 324	with the incidence of thunder squalls Daw, A. N. see Choudhury, N. K. D 169	546
Temperature dependence of Young's modulus of	327	Day-glow: Atomic hydrogen emissions in the day-glow	214
copper, silver & gold	428	Day-time optical communication using a gallium	
Copper anti-pyrene perchlorate complex: ESR in		arsenide laser	488
copper anti-pyrene perchlorate complex	817	DAYAL, B. see Arunsingh	462
Coriolis coupling coefficients: Force field & Coriolis	0.40	DE, M.: Spectral coherence in holography	8
coupling coefficients of carbonyl cyanide Coriolis coupling constants: Generalized mean-square	. 840	Decay characteristics: Rise & decay & spectral charac-	
amplitudes of vibration & Coriolis coupling constants		teristics of ZnO: O photoconductor: Effects of temperature & pressure & nature of ambient atmo-	
of the oxalyl halides	180	spheres	716
Cosmic noise absorption measurements in Delhi	529	Decay of 134Cs: Gamma-gamma-gamma directional	
Cosmic radio noise power: Study of lower ionospheric		correlation studies from the decay of 184Cs	401
absorption of cosmic radio noise power on 28.6 MHz		Decay & thermoluminescence of CaS phosphors	
at Waltair ' carrons Caulomb fold	526	activated with Zr & Mn	476
Coulomb field: Electrons in a strong Coulomb field Coupling constants: Correlation between ¹³ C- ¹⁹ F	765	Decay times, intensities & their temperature variation	
coupling constants in para-substituted fluoro-		of luminescence of aqueous & deuterated solutions of europium ion	505
benzenes & Hammett's constant	671	Decimetre solar bursts: Centimetre & decimetre solar	202
Substituent effects on J13C-H coupling constants in	2.4	bursts in relation to the phase of the S-component	
some vinyl compounds	173	of solar radio emission	736
Coupling schemes, intermediate: Electronic gj values		Decoupled elastic wave propagation in crystals	304
of palladium using RS, jj & intermediate coupling schemes	172	Degassing: Effect of degassing the desorbed oxygen	
Crystal structure of D-phenylalanyl L-phenylalanine	1/2	on the photoconductive patterns obtained on electro- photographic zinc oxide layers	359
o-methoxy hydrobromide	795	Delhi: Cosmic noise absorption measurements in	00)
Crystal structure of diphenylamine by powder		Delhi	529
photograph	850	Delta parameter: The & parameter & its relation to	
Crystal symmetry & cell parameters of the ordered	262	some properties of liquid	604
phase of Co ₃ Sn ₂ Crystalline ordering: Absence of crystalline ordering	363	DEOKAR, V. D.: Hall effect of vacuum-deposited	93
in quantum systems of one dimension	61	mercury selenide films Deorani, S. C. see Gulshan Rai	811
On the impossibility of crystalline ordering in		DESAI, D. A. see JAWALEKAR, S. R	504
one- & two-dimensional classical systems	64	DESHPANDE, D. D.: Dipolar contribution to inter-	
Crystalline solids: Refractivities of vapours of some	000	molecular forces & the infrared solvent shifts	792
aromatic hydrocarbon crystalline solids	828	DESHPANDE, M. R. see HARISH CHANDRA	548
Crystals: Colour centre studies in certain alkali sulphate crystals: Part III — Effect of optical & thermal		Deuterated analogues of 2-, 3- & 4-aminopyridines:	
bleaching on the paramagnetic centres	252	Near infrared spectra of 2-, 3- & 4-aminopyridines & their deuterated analogues	479
Decoupled elastic wave propagation in crystals	304	Deuterated solutions of europium ion: Decay times,	
Epitaxial growth of cuprous selenide films on		intensities & their temperature variation of lumi-	
single crystals	710	nescence of aqueous & deuterated solutions of	
Growth features on the cleavage face of antimony	236	Postern homboald lithium Angular distribution of	505
single crystals Influence of the annihilating dislocations on piezo-	230	Deuteron-bombarded lithium: Angular distribution of neutrons from deuteron-bombarded lithium	108
optic birefringence in some alkali halide crystals	90	Deuteron flux, primary: An upper limit to the primary	100
On a relation between centre frequency & forma-		deuteron flux & path length in space	356
tion energy of vacancies in alkali halide crystals	372	DEVARAJAN, V. see RAMASWAMY, K	173
Cuprous selenide films: Epitaxial growth or cuprous	710	DEVI DAYAL: Heat transfer from electrically heated	0=4
selenide films on single crystals	710	nichrome wire through boiling carbon tetrachloride	854
Current decay: Times of current rise & current decay in the Gunn oscillations	49	Deviative absorption in the F ₂ -layer Dhake, K. P.: Correlation between ¹³ C- ¹⁹ F coupling	211
Current rise: Times of current rise & current decay in		constants in para-substituted fluorobenzenes &	
Gunn oscillations	49	Hammett's constant	671
Cyvin, S. J.: Mean amplitudes of vibration of ketene,		Ultrasonic parameters & hydration numbers in	
methyl ketene & dimethyl ketene	629	aqueous solutions of electrolytes	311
		Diamagnetic susceptibility: Calculation of dia-	177
D		magnetic susceptibility of organic compounds Quadrupole moment & diamagnetic susceptibility	177
D _{3h} symmetry: Optical absorption of the V ³⁺ ion		of H ₂ molecule	669
in complexes of D_{3k} symmetry	473	2,6-Diaminopyridine: Raman & infrared spectra of	
de electric field: Effect of external de electric field on	202	2,6-diaminopyridine	761
absorption of microwaves in plasma	383	Diatomic hydrides: An empirical relationship between	
Di: Phosphorescence spectra of CaS (Zr, Di) phosphors	117	the vibrational frequency & the internuclear distance	241
DNA base pairs: Hydrogen bond resonance energy in DNA base pairs & spontaneous mutations	234	for diatomic hydrides Diatomic molecules: Relation between vibration	241
DARJI, A. B.: The ultraviolet bands (C-system) of		constants of homonuclear & heteronuclear diatomic	
CdBr molecule	240	molecules	752

	PAGE		PAGE
Study of molecular constants: Dependence of		Discrimination of a phase-locked oscillator against	
rotational constants of polar diatomic molecules on electronegativity	18	Dislocation etch pits: Change in morphology of dis-	223
2,6-Dibromobenzoquinones: Vibrational assignment of the infrared spectra of 2,6-dichloro- & 2,6-dibromobenzouin-new part of the infrared spectra of 2,6-dichloro- & 2,6-dibromobenzouin-new part of the properties		location etch pits on the (001) surface of BaF ₂ .BaCl ₂ Dislocations, annihilating: Influence of the annihilating	30
Dichloroaniline: Near ultraviolet absorption spectra of	762	dislocations on piezo-optic birefringence in some alkali halide crystals	90
3,4- & 2,6-dichloroanilines Temperature dependence of ³⁵ Cl pure quadrupole	764	Dispersion, anomalous: An anomalous behaviour in the relative phase difference $(\Delta - \Delta_0)$ in the reflected	70
resonance frequencies in 3,4-dichloroaniline	255	light from a thin film-covered substrate similar to	
p-Dichlorobenzene: Electronic spectra of p-dichlorobenzene	352	anomalous dispersion Dissociation energy, Franck-Condon factors & r-cen-	438
2,6-Dichlorobenzoquinones: Vibrational assignment of the infrared spectra of 2,6-dichloro- & 2,6-dibromo-		troids of diatomic BiCl molecule Dissolution: Estimation of activation energy for the	614
benzoquinones Dichlorophenols: Vibrational spectra of 2,3-, 2,4- &	762	dissolution of NaCl crystals	748
2,5-dichlorophenols 2,5-Dichlorotoluene: Raman & infrared spectra of	237	beam device under Eulerian approximation in the one-dimensional case	1
2,5-dichlorotoluene Didymium: Effect of didymium on the luminescence	115	Drawin's formula & ionization cross-section of cesium	677
of CaS: Bi phosphors	320	Drift of ionospheric irregularities: Effect of magnetic activity on the drift & anisotropy of ionospheric	
Dielectric behaviour of alcohols in benzene solution	107	irregularities	537
in the microwave frequency region Dielectric behaviour of reduced SrTiO ₃ single	107	Ionospheric irregularities & their drifts at Thumba during 1964-68	548
crystals	81	Dual input all-pass phase shifters	46
Dielectric constant technique: Structure-sensitive magnetoelectric effect in chromium oxide single		Dube, Prem Shankar: Determination of effective vibrational temperature of CN violet band system	
crystal as studied by dielectric constant technique	755	in benzonitrile discharge	680
Dielectric constants: A new model for the alcohol structure to explain temperature variation of the		See BARUAH, G. D Dynamic modulus of elasticity: A new method of	761
dielectric constants	316	determining dynamic modulus of elasticity of a	100
Influence of electric & magnetic fields on the dielectric constant of cholesteric liquid crystals	178	solid	486
Dielectric loss: Conductivity measurements from the			
study of dielectric loss in anthracene Dielectric properties of some vegetable oils in the radio	465	EDTA-metal chelates: Ultrasonic method of deter-	
frequency region	176	mining ionic interaction in certain ethylene diamine	
Dielectric properties of solutions of certain nitrates in water	675	elf waves: Effect of lower ionosphere on attenuation	426
Dielectric relaxation in 1,1-difluoro 1,2,2-trichloro-		& phase characteristics of elf & vlf waves	273
Dielectric relaxation studies in chloral at X-band	191	Es: Enhancement of fEs & Es-multiples with the incidence of thunder squalls	546
microwave frequency	846	ESR in copper anti-pyrene perchlorate complex	817
Dielectric relaxation time: Calculation of dielectric relaxation time in solution using Frölich's equation	106	Earth's upper atmosphere: Concentration of NaO & NaH molecules in the earth's upper atmosphere	497
Diffraction images of periodic triangular wave objects	200	Elastic constants: Calculation of physical parameters of	77/
formed by a circular aperture with Straubel pupil function	697	binary alloys from their elastic constants Effect of a short-range three-body interaction on	704
Diffuse reflectance parameters: A comparative assess-	7.0	the third order elastic constants of alkali halides	307
ment of the effectiveness of different diffuse re- flectance parameters in absorption studies	362	Elasticity, dynamic modulus of: A new method of determining dynamic modulus of elasticity of a	
1,1-Difluoro 1,2,2-trichloroethane: Dielectric relaxa-		solid	486
tion in 1,1-difluoro 1,2,2-trichloroethane Difluorodiazirine: Molecular constants of difluoro-	191	Electrets: Effect of polarizing field on the dipole orientation in electrets	659
diazirine (CF ₂ N ₂)	142	Variation of capacitance of perspex electrets due	039
Dihydrazinium oxalate: Raman & infrared spectra of hydrazinium hydrogen oxalate & dihydrazinium		to thermo-electret formation Electric field, dc: Effect of external dc electric field	174
oxalate	342	on absorption of microwaves in plasma	383
Dimethyl benzyl carbinol: Infrared & Raman spectra of phenyl methyl carbinol & dimethyl benzyl carbinol	144	Electric fields: Influence of electric & magnetic fields on the dielectric constant of cholesteric liquid	
Dimethyl ketene: Mean amplitudes of vibration of		crystals	178
ketene, methyl ketene & dimethyl ketene 2,4-Dimethylphenol vapour: Near ultraviolet absorp-	629	Electrical discharge: Study of polymerized products formed from electrical discharge through toluene &	
tion spectrum of 2,4-dimethylphenol vapour	239	ethylbenzene	119
DINA NATH see SRIVASTAVA, S. C Diphenyl group: Infrared spectra of benzophenone	191	Electroluminescence of CaS: Ag phosphors Electroluminescence of ZnS: Cu, Zr phosphors	294 364
in the solid state: Diphenyl group	100	Electrolyte-tantalum oxide-tantalum system: Recti-	304
Diphenylamine: Crystal structure of diphenylamine by powder photograph	850	fication by tantalum-tantalum oxide-electrolyte system	504
Dipolar contribution to intermolecular forces & the		Electrolytes: Ultrasonic parameters & hydration	301
infrared solvent shifts Dipole moment: Microwave spectrum & dipole moment	792	numbers in aqueous solutions of electrolytes A relation between adiabatic compressibility &	311
of nitroethane	261	viscosity of organic liquids & molten electrolytes	111
Dipole orientation: Effect of polarizing field on the dipole orientation in electrets	659	Electromagnetic field, generalized: Reduction of generalized electromagnetic field to irreducible	
Directional correlation studies: Gamma-gamma-		representation of Lorentz group	297
gamma directional correlation studies from the decay of ¹³⁴ Cs	401	Reduction of generalized electromagnetic fields to the irreducible representation of Lorentz group	
Discharge plasma gas: Effect of ethyl alcohol impurity	10-1	for non-zero mass system	439
on the rf conductivity of a low temperature gas discharge plasma	493	Electromagnetic probing of the atmosphere: The mesosphere & the lower thermosphere	507

	PAGE	· 7	PAGE
Electromagnetic probing of the atmosphere: The		Explosive-metal combination: Plane wave shapers by	4.60
upper ionosphere Electron collision frequency: Microwave measurement	516	metal-explosive combination	169
of electron collision frequency in a mercury vapour			
dc glow discharge plasma column Electron content measurements from Faraday fading	645		
of satellite transmissions during low & high solar		To the state of th	
activity	577	F ₂ -layer: Deviative absorption in the F ₂ -layer	211
Electron content, total: Total electron content of ionosphere at Kurukshetra	581	F-region disturbances in the Australasian zone during IGY-IGC	551
Electron impact: A new semiempirical formula for		F-region irregularities: Study of irregularities in the	
ionization cross-section of neutral atoms by electron impact	843	F-region of the ionosphere Facet formation: Effects of some parameters on facet	560
Electron impact ionization cross-sections of		formation in bismuth	852
ionized atoms Electron-phonon interaction in semiconductors	21 444	Faraday fading: Electron content measurements from Faraday fading of satellite transmissions during	
Electronegativity: Study of molecular constants:	-	low & high solar activity	577
Dependence of rotational constants of polar diatomic molecules on electronegativity	18	Feedback error correlation measure as a performance	160
Electronic absorption spectra of 2- & 8-chloroquinoline	10	index for a class of control systems Ferrites, new: Synthesis & properties of some new	160
vapours Electronic emission spectra: n-II* electronic	178	ferrites of formula La3+Me2+Fe3+O19	412
emission spectra of m- & p-methoxy benzaldehyde		Ferroelectric properties of tetragonal (BaPb)(NbZr)O ₃ Field emission microscopy, applying rf voltage to the	707
vapours	285	insulator tip	847
Electronic g _J values of palladium using RS, jj & intermediate coupling schemes	172	Field gradient calculation in some metals of hexagonal close-packed structure	458
mediate coupling schemes	352	Field, non-uniform: On the Gunn-domain motion in	
Electronic structure & spectra of some hetero-substi- tuted benzenes	691	non-uniform field Films: Hall effect of vacuum-deposited mercury	758
Electronic state: A note on the electronic state of	F.	selenide films	93
random systems Electronic structure & spectra of some hetero-	56	Fission track ages of some Indian apatites Flames: Use of particle track technique in studies	397
substituted benzenes	691	on flames	42
Electrons in a strong Coulomb field Electrophotographic zinc oxide layers: Effect of de-	765	Flare effects on If radio waves propagated over a distance of about 1600 km	569
gassing the desorbed oxygen on the photoconductive		Fluids: Equation of state for fluids according to the	307
patterns obtained on electrophotographic zinc oxide layers	359	new intermolecular potential Fluorobenzenes, para-substituted: Correlation between	188
Electrostatic atomization of liquid points	739	13C-19F coupling constants in para-substituted	
Emission spectra: $n-\Pi^*$ electronic emission spectra of $m-\&p$ -methoxy benzaldehyde vapours	285	fluorobenzenes & Hammett's constant α-Fluoronaphthalene: Emission spectrum of α-fluoro-	671
Emission spectrum of BaI molecule	681	naphthalene	179
Emission spectrum of α-fluoronaphthalene Thermal emission & absorption spectra (F-X	179	m-Fluorophenol: Vibrational assignment of the near ultraviolet spectrum of m-fluorophenol in vapour	
system) of CuCl molecule	759	state	157
Ultraviolet emission spectrum of CaBr molecule Emulsions: Charge identification of nuclear tracks in	118	Flute instability: On the stability condition of flute instability in an inhomogeneous plasma	585
photographic emulsions	652	Force constants: External properties of force constants	
Spurious scattering in nuclear emulsions Energy bands, non-relativistic: Non-relativistic energy	406	in octahedral hexafluorides Force constants & bond distances for the U-O	196
bands of double hexagonal close-packed lantha-	(0.5	bond of uranyl salts	108
num Energy gap in nuclear matter & velocity-dependent	685	Force field & Coriolis coupling coefficients of carbonyl cyanide	840
nucleon-nucleon interaction	302	Intramolecular force field & chemical bonding in	010
Energy levels: Free electron molecular orbital cal- culations on the energy levels of some polyacene		trihalides of antimony & bismuth Force models: Lattice dynamics of silver on the basis	367
ions	292	of angular force models	334
Epitaxial growth of cuprous selenide films on single crystals	710	Formation energy: On a relation between centre frequency & formation energy of vacancies in alkali	
Equation of state for fluids according to the new		halide crystals	372
intermolecular potential Expression for attenuation of sound due to thermal	188	Formation factor of unconsolidated porous medium Franck-Condon factors: Dissociation energy, Franck-	742
& viscous losses from equation of state	454	Condon factors & r-centroids of diatomic BiCl	
Equator: Interrelations between geomagnetic & ionospheric lunar tides at equator	533	molecule	614
Etch pits: Change in morphology of dislocation etch		Franck-Condon factors, r-centroids & intensity distributions in some band systems of BaF	
pits on the (001) surface of BaF ₂ .BaCl ₂ Development of unusual etch pits in bismuth	30 672	molecule Franck-Condon factors & r _e -shifts from 'true'	423
Ethylbenzene: Study of polymerized products formed		potential curves	749
from electrical discharge through toluene & ethylbenzene	119	Potential energy curves, r-centroids & Franck-	617
Ethylene diamine tetraacetic acid (EDTA): Ultrasonic		Condon factors for the bands of P ₂ molecule Free electron molecular orbital calculations on the	617
method of determining ionic interaction in certain ethlyene diamine tetraacetic acid (EDTA)-metal		energy levels of some polyacene ions	292
chelates	426	Frequency, centre: On a relation between centre frequency & formation energy of vacancies in alkali	
Eulerian approximation: Nonlinear mixing in a double beam device under Eulerian approximation in the		halide crystals Frölich's equation: Calculation of dielectric relaxation	372
one-dimensional case	1	time in solution using Frölich's equation	106
Europium ion: Decay times, intensities & their temperature variation of luminescence of aqueous &		Fundamental wave: Scattering of light into funda- mental & second harmonic waves by materials of	
deuterated solutions of europium ion	505	finite dimension	130

	PAGE		PAGE
g _j values: Electronic g _j values of palladium using		Growth features on the cleavage face of antimony	
RS, jj & intermediate coupling	172	single crystals	230
GeCl molecule: The B-X band system of the GeCl molecule	025	Grüneisen constant: Evaluation of Grüneisen constant	232
GeSe: Study of vapour phase deposits of GeTe & GeSe	825 798	GULSHAN RAI: Temperature dependence of ultrasonic absorption in praseodymium sulphide solutions	014
GeTe: Study of vapour phase deposits of GeTe & GeSe	798	Gunn-domain motion: On the Gunn-domain motion in	811
Gallium arsenide laser: Day-time optical communica-	1,111	non-uniform field	758
tion using a gallium arsenide laser	488	Gunn oscillations: Times of current rise & current	
Temporal behaviour of light emission from gallium	0.40	decay in Gunn oscillations	49
arsenide injection lasers Gamma-gamma-gamma directional correlation studies	849	GUPTA, A. K. see GUPTA, V. D	842
from the decay of ¹³⁴ Cs	401	GUPTA, A. K. see GUPTA, V. D GUPTA, B. N. see SINGH, K GUPTA, J. P. see TANDON, S. P 23	780 31, 362
Gamma rays: Effective atomic numbers in alloys for	101	GUPTA, L. C.: Nuclear quadrupole interactions of 35Cl	1, 50.
incoherent scattering of gamma rays	845	in K ₂ CuCl ₄ .2H ₂ O	754
Pair cross-sections of gamma rays	670	GUPTA, R. C. see AGRAWAL, V. D	26
GANGULY, A. K. see NAMBI, K. S. V GARG, C. L.: Force constants & bond distances for the	280	GUPTA, R. R. see MITAL, R. L	177
U-O bond of uranyl salts	108	GUPTA, R. S.: Analysis of a composite transistor voltage amplifier circuit	. 33
GARG, V. K.: Anomalous multiple reflections from	100	Output resistance of the super-alpha composite	3.
ionosphere	391		50
Gaseous mixtures: Thermal conductivity of polyatomic	0.44	transistor	108
gaseous mixtures at elevated temperatures GAUR, N. K. S.: Polaron mobility studies in AgBr,	844	GUPTA, S. P.: Effect of lower ionosphere on attenuation	271
AgCl & KBr at finite temperatures	694	& phase characteristics of elf & vlf waves see Balkrishna	273 750
GAUR, R. K.: Charge identification of nuclear tracks	٠,٠	GUPTA, V. D.: Phase transition in copolymeric systems	842
in photographic emulsions	652	GUPTA, V. K. See YOGENDRA KUMAR	752
Track width in nuclear emulsions	468		
GAUR, S. C.: Variation of attenuation of acoustic waves through plasma with ion-plasma frequency	86		
GAUTAM, H. O.: Microwave dispersion in CH ₃ COOH-	00	H ₂ molecule: Quadrupole moment & diamagnetic	
CH ₃ COOH bimolecule	713	susceptibility of H ₂ molecule	669
Generalized electromagnetic fields: Reduction of		Halide ions: Light absorption in halide ions in state of	
generalized electromagnetic fields to the irreducible		solution	154
representation of Lorentz group for non-zero mass system	439	Hall effect of vacuum-deposited mercury selenide	93
Geographic equator: Suppression of the noon bite-out	437	films Hammett's constant: Correlation between 12C-19F	7.
phenomenon at the geographic equator during sun-		coupling constants in para-substituted fluorobenzenes	
spot maximum	113	& Hammett's constant	671
Geomagnetic lunar tides: Interrelations between geo-	500	HANNAN, S. S.: Unit cell dimensions & space group of	440
magnetic & ionospheric lunar tides at equator GHOSH, APARNA: Non-relativistic energy bands of	533	2'-methyl-4'-nitroazobenzene-2-sulphenyl cyanide	112
double hexagonal close-packed lanthanum	685	HARI BABU, V.: Estimation of activation energy for the dissolution of NaCl crystals	748
GHOSH, S. N.: Studies on the after-glow of water vapour	806	HARI MOHAN see Puri, S. N	759
X-ray & radio emissions from the sun	801	HARIDASAN, T. M. see GOVINDARAJAN, J	376
Glow discharge (dc) plasma column: Microwave		HARIHARAN, N.: Colour centre studies in certain alkali	
measurement of electron collision frequency in a mercury vapour dc glow discharge plasma column	645	sulphate crystals: Part III — Effect of optical &	252
GOEL, V. P. see MATHUR, S. C	345	thermal bleaching on the paramagnetic centres HARISH CHANDRA: Ionospheric irregularities & their	202
GOHEL, V. B.: Modified form of Rittner's potential	0.10	drifts at Thumba during 1964-68	548
function for alkali hydride molecules	139	Harmonic generation, second: Optimum second har-	
Gold: Temperature dependence of Young's modulus	400	monic generation in inhomogeneous semiconductors	769
of copper, silver & gold GOPAL, E. S. R. see SOVANI, ARUNA V	428 304	Heat capacity: Lattice dynamics & heat capacity of indium	331
GOPAL RAO, M. S. V. SEE SATYANARAYANA SARMA, M.	523	Heat transfer from electrically heated nichrome wire	
GOPALA RAO, R. V.: Evaluation of potential energy		through boiling carbon tetrachloride	854
constants using the 'order-disorder' theory re-		Heisenberg system: Magnetic behaviour of a Heisenberg	PLAT
garding the phenomenon of melting	78	system of three-level ions	747
Expression for attenuation of sound due to thermal & viscous losses from equation of state	454	Helium-neon gas laser: Mode characteristics of the helium-neon gas laser	249
Significant structure theory & a new method of	131	Heteronuclear diatomic molecules: Relation between	
evaluation of liquid volumes	601	vibration constants of homonuclear & heteronuclear	
Significant structure theory & evaluation of		diatomic molecules	752
thermodynamic properties of liquid carbon	451	Hetero-substituted benzenes: Electronic structure &	691
disulphide The 8 parameter & its relation to some properties	431	spectra of some hetero-substituted benzenes Hexafluorides, octahedral: Extremal properties of	071
of liquids	604	force constants in octahedral hexafluorides	196
GOPALAKRISHNA, C. V. S. S. V.: Influence of electric &		Hexafluoroanions: Mean amplitudes of vibration &	
magnetic fields on the dielectric constant of choles-	470	shrinkages in some hexafluoroanions of IVA & VA	193
teric liquid crystals Goswami, A.: Epitaxial growth of cuprous selenide	178	group elements Hexagonal close-packed structure: Field gradient cal-	193
films on single crystals	710	culations in some metals of hexagonal close-packed	
Study of vapour phase deposits of GeTe & GeSe	798	structure	458
see Barua, K. C see Deokar, V. D	258	Holography: Spectral coherence in holography	8
GOUR, S. N.: Electroluminescence of CaS: Ag phosphors	93	Homonuclear diatomic molecules: Relation between	
Govil, G. see Dhingra, M. M	294 671	vibration constants of homonuclear & heteronuclear diatomic molecules	752
GOVINDARAJAN, J.: Lattice dynamics of ammonium	0/1	Homo-substituted benzenes: Semi-empirical PPP-SCF-	
halides	376	MO-CI calculations on some homo-substituted	
Group IVA & VA elements: Mean amplitudes of vibra-		benzenes	70 241
tion & shrinkages in some hexafluoroanions of IVA & VA group elements	193	HUSSAIN, Z. see SHARMA, KRISHAN K see YOGENDRA KUMAR	752
transfer transfer to the state of the state	173	SUU I OGENDAN ILVADA	

			- 1101
Hybridization of bond orbitals: A new look at the	15	Intensity distributions: Franck-Condon factors, r-cen-	
concept of the hybridization of bond orbitals Hydration numbers: Ultrasonic parameters & hydra-	15	troids & intensity distributions in some band systems of BaF molecule	423
tion numbers in aqueous solutions of electrolytes	311	Interaction, short-range three-body: Effect of a short-	,,,,,,
Hydrazinium hydrogen oxalate: Raman & infrared spectra of hydrazinium hydrogen oxalate & di-		range three-body interaction on the third order elastic constants of alkali halides	- 307
hydrazinium oxalate	342	Interfering tones: Discrimination of a phase-locked	
Hydrides: An empirical relationship between the vibra- tional frequency & the internuclear distance for		oscillator against interfering tones Interferogram of a jet impinging against a heated	223
diatomic hydrides	241	plate	293
Hydrocarbon crystalline solids: Refractivities of		Interferometers, two-beam: Polarizing effect of beam-	04
vapours of some aromatic hydrocarbon crystalline solids	828	splitter in two-beam interferometers Intermolecular forces: Dipolar contribution to inter-	814
Hydrocarbons, alternant: Ionization potentials of some		molecular forces & the infrared solvent shifts	792
alternant hydrocarbons from a simplified version of	750	Intermolecular potential, new: Equation of state for fluids according to the new intermolecular potential	188
Pople's SCF-MO theory	750	Internal pressure: Calculation of the internal pressure	1.00
spontaneous mutations	234	in liquids	58
Hydrogen bromide, liquid: Evaluation of thermo- dynamic properties of liquid hydrogen bromide using		Internal pressure of water Internuclear distance: An empirical relationship	753
significant structure theory	609	between the vibrational frequency & the internuclear	
Hydrogen emissions, atomic: Atomic hydrogen emis-	214	distance for diatomic hydrides Intramolecular force field & chemical bonding in tri-	241
sions in the day-glow	217	halides of antimony & bismuth	367
		ion-plasma frequency: Variation of attenuation of	
IGY-IGC: F-region disturbances in the Australasian		acoustic waves through plasma with ion-plasma frequency	86
zone during IGY-IGC	551	Ionic interaction: Ultrasonic method of determining	0(
In ₂ Te ₃ : Thin film structure of In ₂ Te ₃	258	ionic interaction in certain ethylene diamine tetra-	420
Impurities: Effect of impurities on the characteristics of infrared-sensitive lead sulphide layers	831	acetic acid (EDTA)-metal chelates Ionization cross-section: Calculation of ionization	426
Impurity: Effect of ethyl alcohol impurity on the rf		cross-section of molecules due to heavy particle	
conductivity of a low temperature gas discharge plasma	493	impact on the basis of classical approximation Drawin's formula & ionization cross-section of	612
Impurity diffusion of rare earth metals in copper	324	cesium	677
Phonon scattering in a linear chain containing	592	Electron impact ionization cross-sections of ionized atoms	21
an impurity Indium: Lattice dynamics & heat capacity of indium	331	New semiempirical formula for ionization cross-	21
Infrared absorption spectrum of N-acetonyl quino-	100	section of neutral atoms by electron impact	843
Infrared absorption spectrum of benzoyl chloride	182 116	Ionization potentials of some alternant hydrocarbons from a simplified version of Pople's SCF-MO theory	750
Infrared absorption spectra of methylstyrenes &	***	Ionized atoms: Electron impact ionization cross-	, 50
p-methoxystyrene	725	sections of ionized atoms	21
Infrared absorption spectra of some quinoline derivatives	54	Ionosphere: Anomalous multiple reflections from ionosphere	391
Infrared-sensitive lead sulphide layers: Effect of im-		Effect of lower ionosphere on attenuation & phase	
purities on the characteristics of infrared-sensitive lead sulphide layers	831	characteristics of elf & vlf waves Effect of smallness of values of parameters Z_i &	273
Infrared solvent shifts: Dipolar contribution to inter-		Ze on the complex refractive index of the iono-	
molecular forces & the infrared solvent shifts	792	sphere for vlf propagation	387
Infrared spectra: Infrared absorption spectra of some quinoline derivatives	54	Electromagnetic probing of the atmosphere: The upper ionosphere	516
Infrared & Raman spectra of phenyl methyl	444	Study of irregularities in the F-region of the	
carbinol & dimethyl benzyl carbinol Infrared spectra of benzophenone in the solid	144	Total electron content of ionosphere at Kuruk-	560
state: Diphenyl group	100	shetra	581
Infrared spectra of α-chloronaphthalene, α- naphthol, β-naphthol & β-methylnaphthalene	348	Ionospheric absorption measurements at 1.55 MHz by	522
Infrared spectra of 2-chloro-4-nitroaniline & 4-	310	the URSI A3 method Lunar oscillations in the ionospheric absorption	523 541
chloro-2-nitroaniline	682	Study of lower ionospheric absorption of cosmic	
Infrared spectra of 2- & 8-chloroquinolines Infrared spectra of some chloroxylenes in the	762	radio noise power on 28.6 MHz at Waltair Ionospheric indication of short-time solar activity	526
liquid state	483	variations /	544
Near infrared spectra of 2-, 3- & 4-aminopyridines & their deuterated analogues	479	Ionospheric irregularities: Characteristics of large-scale	555
Raman & infrared spectra of 2,6-diaminopyridine	761	ionospheric irregularities Effect of magnetic activity on the drift & aniso-	333
Raman & infrared spectra of 2,5-dichlorotoluene	115	tropy of ionospheric irregularities	537
Raman & infrared spectra of some complexes of thiourea with zinc(II), cadmium(II) & mer-		Ionospheric irregularities & their drifts at Thumba during 1964-68	548
cury(II)	338	Ionospheric lunar tides: Interrelations between geo-	
Raman & infrared spectra of hydrazinium hydro- gen oxalate & dihydrazinium oxalate	342	magnetic & ionospheric lunar tides at equator	533
Vibrational assignment of the infrared spectra of	372	Ions: Orbital valence force field in tetrahedral mole- cules & ions	72
2,6-dichloro- & 2,6-dibromo-benzoquinones	762	Magnetic behaviour of a Heisenberg system of	
Injection lasers: Temporal behaviour of light emission from gallium arsenide injection lasers	849	three-level ions Irreducible representation: Reduction of generalized	747
Insulation breakdown: Branching angles in the		electromagnetic field to irreducible representation of	
Lichtenberg figure studies of insulation breakdown Intensities: Decay times, intensities & their tem-	757	Lorentz group	297
perature variation of luminescence of aqueous &		Reduction of generalized electromagnetic fields to the irreducible representation of Lorentz group	
deuterated solutions of auronium ion	FOE	fan man and man and and and and and and and and and a	430

•	PAGE		PAG
Isotope shift in the bands of $B^3\Sigma_u - X^3\Sigma_g$ system of S_3		KHER, V. G.: Spin lattice relaxation time & molecular	4.0
molecule	52 289	association of pyridine in liquid mixtures KHETRAPAL, C. L. see DHINGRA, M. M.	40 67
ilendar, it. o. see Unital Anabatan, U. U	209	Kirkwood's analysis of cell model: Extension of Kirkwood's analysis of cell model to intermediate density	67
JAGADISH SINGH: Dissociation energy, Franck-Condon		KOR, JAYANTI: Scattering of light into fundamental &	67
factors & r-centroids of diatomic BiCl molecule	614	second harmonic waves by materials of finite dimension	13
JAI PRAKASH: Calculation of dielectric relaxation time in solution using Frölich's equation	106	KRISHNA MOHANA RAO, P. S.: A new model for the	
JAIN, A. K. see Singh, K	780	alcohol structure to explain temperature variation	31
JAIN, S. C.: Thermal relaxation & rate constant in	(50	of the dielectric constants Krishna Murty, V. G.: Influence of the annihilating	21
water	673	dislocations on piezo-optic birefringence in some	
JAISWAL, V. K.: Electrostatic atomization of liquid	17, 432	alkali halide crystals	9
points	739	KRISHNAJI: Microwave spectrum of chlorotrifluoro- ethylene	63
Interferogram of a jet impinging against a heated plate	293	Microwave spectrum & dipole moment of nitro-	
Thermal conductivity of polyatomic gaseous	473	ethane KRISHNAMURTY, BH. see SASTRY, G. L. N	26 42
mixtures at elevated temperatures	844	KRISHNAMURTY, BH. see SASTRY, G. L. N KRISHNAN, K. see KRISHNAN, R. S	24
JANARDHANAN PILLAT, "K. K.: Effect of impurities on the characteristics of infrared-sensitive lead sulphide		Krishnan, R. S.: Mode characteristics of the helium-	
layers	831	neon gas laser see Ramanujam, P. S	24 62
JAWALEKAR, S. R.: Rectification by tantalum-tantalum	#O.4	KRORI, K. D.: Calculation of clock rate difference on	02
oxide-electrolyte system	504 36	the basis of Kerr metric of a rotating body	66
JAYADEVAPPA, E. G. see Shashidhar, M. A	483	General relativistic treatment of some dense massive spheres	58
JAYARAMAN, S. see RAMASWAMY, K It impinging against a heated plate: Interferogram	625	Kubelka-Munk theory: A note on Kubelka-Munk	
of a jet impinging against a heated plate	293	theory of diffuse reflectance	23
JHA, R. K. see GARG, V. K	391	Kuppusami, J.: Effect of degassing the desorbed oxygen on the photoconductive patterns obtained on electro-	
JHA, S. K. see Puri, R. K Jogulu, C.: Effect of magnetic activity on the drift &	356	photographic zinc oxide layers	35
anisotropy of ionospheric irregularities	537	Kurukshetra: Total electron content of ionosphere: at Kurukshetra	. 58:
JOSHI, DAYASHANKAR: Temperature dependence of	400	Auruksnetra	. 50.
Young's modulus of copper, silver & gold JOSHI, Y. P.: Phonon scattering in a linear chain	428		
containing an impurity	592	T	
JULIANA, (Mrs) MARY: Contact potential photovoltaic effect in silver sulphide layers	295	La ³⁺ Me ²⁺ Fe ³⁺ O ₁₉ formula, ferrites: Synthesis & pro-	
JUNEJA, S. L. see SARMA, S. B. S. S	529	perties of some new ferrites of formula La ⁸⁺ Me ²⁺	444
		Fe ₁₁ *O ₁₉	412
		gated over a distance of about 1600 km	569
KBr: Polaron mobility studies in AgBr, AgCl & KBr		LAHIRI, S. K.: Low frequency oscillations in thin platelets of cadmium sulphide	66
at finite temperatures	694	Lakshman, S. V. J. see Ramakrishna Rao, T. V. 61	
K ₂ CuCl ₄ .2H ₂ O: Nuclear quadrupole interactions of	77.4	LAKSHMANAN, A. S. see KUPPUSAMI, J	359
sicl in K ₂ CuCl ₄ .2H ₂ O KI: Standard partial molal compressibilities of aqueous	754	LAKSHMI, D. R. see REDDY, B. M LAKSHMI NARAIN: Free electron molecular orbital cal-	510
solutions of NaI & KI at 25°C	683	culations on the energy levels of some polyacene	
KADAMBA, K. G. see DESHPANDE, D. D	792	ions	29: 11:
KAMLESH SINGH see BARUAH, G. D KANITKAR, P. L. see LELE, A. B	678 151	LAL, B. B. see Singh, S. R LAL, H. B.: Dielectric behaviour of reduced SrTiO ₃	11
KANT, P. see Srivastava, K. G	755	single crystals LAL, H. H.: Lattice dynamics of RbCl	8
KANTIMATI, B.: Field gradient calculations in some metals of hexagonal close-packed structure	458	LAL, J. B.: Total electron content of ionosphere at	38
Temperature dependence of ³⁵ Cl pure quadrupole	730	Kurukshetra	58
resonance frequencies in 3,4-dichloroaniline	255	see Tyagi, Tuhi Ram Lalmani: Very low frequency (vlf) emissions at low	55.
KATHURIA, S. P. see NAMBI, K. S. V KAVATHEKAR, A. K.: Diffraction images of periodic	280	latitudes (vii) emissions at low	56-
triangular wave objects formed by a circular aperture		Lanthanum: Non-relativistic energy bands of double	
with Straubel pupil function	697	hexagonal close-packed lanthanum	68.
Kerr metric: Calculation of clock rate difference on the basis of Kerr metric of a rotating body	668	Laplace transform: On the computation of Laplace transform of the state transition matrix	. 21
KESHAW SINGH: Lattice dynamics of silver on the		Laser: Day-time optical communication using a	٠.
basis of angular force models Ketene: Mean amplitudes of vibration of ketene,	334	gallium arsenide laser Mode characteristics of the helium neon gas laser	48: 24:
methyl ketene & dimethyl ketene	629	Temporal behaviour of light emission from gallium	
KHAN, ANWAR A.: A transistorized linear scale ohm-	500	arsenide injection lasers	84
meter KHANNA, B. N. see MISHRA, R. K	502 825	Latitudes, low: Very low frequency (vlf) emissions at low latitudes	564
KHANNA, S. L.: Effect of polarizing field on the dipole		Lattice dynamical study of cobalt	13:
orientation in electrets	659	Lattice dynamics & heat capacity of indium	33
See Talwar, I. M KHARE, M. L.; A hypothesis to explain observed	851	Lattice dynamics of ammonium halides Lattice dynamics of Mg.Sn	46
characteristics of charge density in magnetoelectrets	700	Lattice dynamics of RbCl	38
KHARE, V. K.: Phosphorescence decay of BaS: Bi	649	Lattice dynamics of rubidium based on Toya's theory	59
phosphors Khayyoom, A.: Effective atomic numbers in alloys	לידיט	Lattice dynamics of silver on the basis of angular	
for incoherent scattering of gamma rays	845	force models	334

•	PAGE		PAGE
Lead sulphide layers: Effect of impurities on the characteristics of infrared-sensitive lead sulphide	024	Magnetoelectric effect, structure-sensitive: Structure-sensitive magnetoelectric effect in chromium oxide	
Lead zirconate titanate: Ultrasonic interferometer	831	single crystal as studied by dielectric constant technique	755
with lead zirconate titanate as transducer Lele, A. B.: Molecular constants of P ₂ I ₄ molecule	848 151	Magnetosphere: Propagation of vlf electromagnetic waves through the magnetosphere	573
Lichtenberg figure studies: Branching angles in the		MAHIPAL SINGH: A new mounting of concave grating	201
Light: Performance of an optical system using a	757	MAHRA, H. S.: On the accuracy of ATA time signals MAJUMDAR, K. see MAHIPAL SINGH	503 201
circular aperture with an apodizing screen illu-	700	Malhotra, B. R.: Phosphorescence spectra of CaS (Zr,	
minated by partially coherent light Scattering of light into fundamental & second	780	Di) phosphors	117
harmonic waves by materials of finite dimension Light absorption in halide ions in state of solution	130	phenone in the solid state: Diphenyl group	100
Light absorption in pyramidal XO ₃ ions in state	154	MALLIKHARJUNASWAMY, K.: Calculation of the internal pressure in liquids	58
of solution Light emission: Temporal behaviour of light emission	199	Relation between adiabatic compressibility & viscosity of organic liquids & molten electrolytes	111
from gallium arsenide injection lasers	849	MANGAL, P. C. see Suri, K. K	394
Linear chain: Phonon scattering in a linear chain containing an impurity	592	MANOHAR, H. see RAJESWARI, (Miss) H Mass system, non-zero: Reduction of generalized	363
Line-width parameters: Theoretical evaluation of	0,2	electromagnetic fields to the irreducible representa-	420
microwave spectral line-width parameters of carbonyl sulphide (OCS) & sulphur dioxide (SO ₂) as broadened		tion of Lorentz group for non-zero mass system MATHUR, H. B. see BADRINARAYANAN, S	439 324
by methyl bromide (CH ₃ Br) Liquid crystals, cholesteric: Influence of electric &	245	MATHUR, S. C.: Optical absorption spectra of diluted	
magnetic fields on the dielectric constant of choles-		Cu(KSO ₄) ₂ .6H ₂ O single crystals diluted with Zn(KSO ₄) ₂ .6H ₂ O	345
teric liquid crystals Liquid mixtures: Ultrasonic absorption studies in	178	Suitability of molecular orbitals for band structure calculations: Empirical correlation of molecular	
liquid mixtures	598	properties	788
Liquid points: Electrostatic atomization of liquid points	739	Mean amplitudes of vibration of ketene, methyl ketene & dimethyl ketene	629
Liquid volumes: Significant structure theory & a new		Mean amplitudes of vibration & shrinkages in some	102
method of evaluation of liquid volumes Liquids: Basis of Misra's theoretical model for classical	601	hexafluoro-anions of IVA & VA group elements Mean-square amplitudes of vibration: Generalized	193
liquids	448 58	mean-square amplitudes of vibration & Coriolis coupling constants of the oxalyl halides	180
New theory of monatomic liquids	775	MEHTA, P. C. see TANDON, S. P 18, 5	4, 182
Relation between adiabatic compressibility & viscosity of organic liquids & molten electrolytes	111	MEHTA, P.P.: Fission track ages of some Indian apatites Melting: Evaluation of potential energy constants	397
Relation between compressibility parameters of		using the 'order-disorder' theory regarding the	Plo.
some non-polar & nearly non-polar liquids The δ parameter & its relation to some properties	185	menezes, C. A. see Chincholkar, V. S	78 707
of liquids Thickness of the surface layer of some elementary	604	MENON, M. V. G. see CHATTERJEE, U. K	488
liquids	237	Mercury(II): Raman & infrared spectra of some complexes of thiourea with zinc(II), cadmium(II) &	
Lithium: Angular distribution of neutrons from deuteron-bombarded lithium	108	mercury (II)	338
Lorentz group: Reduction of generalized electro-		mercury selenide films	93
magnetic field to irreducible representation of Lorentz group	297	Mercury vapour discharge plasma: Microwave measurement of electron collision frequency in a mercury	
Reduction of generalized electromagnetic fields to the irreducible representation of Lorentz		vapour de glow discharge plasma column	645
group for non-zero mass system	439	Mesidine: Vibrational spectra of mesidine & pseudo- cumidine	678
Luminescence: Decay times, intensities & their temperature variation of luminescence of aqueous &		Mesosphere: Electromagnetic probing of the atmosphere: The mesosphere & the lower thermosphere	507
deuterated solutions of eruopium ion	505	Metal-EDTA chelates: Ultrasonic method of deter-	50,
Effect of didymium on the luminescence of CaS: Bi phosphors	320	mining ionic interaction in certain ethylene diamine tetraacetic acid (EDTA)-metal chelates	426
Lunar oscillations in the ionospheric absorption	541	Metal-explosive combination: Plane wave shapers by	160
		metal-explosive combination Metals (hcp): Field gradient calculations in some	169
Mg ₂ Sn: Lattice dynamics of Mg ₂ Sn	462	metals of hexagonal close-packed structure Metals, rare earth: Impurity diffusion of rare earth	458
Mn: Decay & thermoluminescence of CaS phosphors		metals in copper	, 324
activated with Zr & Mn Magnetic activity: Effect of magnetic activity on the	476	m-& p-Methoxy benzaldehyde vapours:n-II* electronic emission spectra of m- & p-methoxy benzaldehyde	
drift & anisotropy of ionospheric irregularities	537	vapours	285
Magnetic behaviour of a Heisenberg system of three- level ions	747	methylstyrenes & p-methoxystyrene	725
Magnetic fields: Influence of electric & magnetic fields on the dielectric constant of cholesteric liquid		Methyl bromide: Theoretical evaluation of microwave spectral line-width parameters of carbonyl sulphide	
crystals	178	(OCS) & sulphur dioxide (SO _a) as broadened by	045
Magnetic resonance: On the solution of wave equation with periodic perturbation & magnetic resonance by		methyl bromide (CH ₃ Br) Methyl ketene: Mean amplitudes of vibration of ketene,	245
free nucleons	127	methyl ketene & dimethyl ketene	629
Magneto-ionic theory: On the wave polarization of magneto-ionic theory	436	2'-Methyl-4'-nitroazobenzene-2-sulphenyl cyanide: Unit cell dimensions & space group of 2'-methyl-	
Magnetoelectrets: Hypothesis to explain observed characteristics of charge density in magnetoelectrets	700	4'-nitroazobenzene-2-sulphenyl cyanide β-Methylnaphthalene: Infrared spectra of α-chloro-	112
Photo-depolarization of magnetoelectrets of poly-		naphthalene, α-naphthol, β-naphthol & β-methyl-	348
crustalline sulphur	500	naphthalene	340

			PAG.
Methylstyrenes: Infrared absorption spectra of methyl-	505	MULAY, V. N.: Synthesis & properties of some new	
styrenes & p-methoxystyrene Microscopy, field emission: Field emission microscopy,	725	ferrites of formula La ³⁺ Me ²⁺ Fe ³ iO ₁₉	41
applying rf voltage to the insulator tip	847	MULIMANI, B. G. see SASTRY, P. V.	470 371
Microwave dispersion in CF ₃ COOH-CH ₃ COOH bi- molecule	712	Multiple reflections, anomalous: Anomalous multiple	
Microwave frequency region: Dielectric behaviour of	713	reflections from ionosphere Multivibrator, astable: Analysis of a transistorized	39
alcohols in benzene solution in the microwave	4.00	astable multivibrator working in the unsaturated	
frequency region	107	mode	83.
in a mercury vapour dc glow discharge plasma		theory of diffuse reflectance	23
column	645	theory of diffuse reflectance	23
Microwave spectral line-width parameters: Theoretical evaluation of microwave spectral line-width para-		MURTY, C. R. K. see GOPALAKRISHNA, C. V. S. S. V MURTY, D. S. see YADAV, H. S	17 16
meters of carbonyl sulphide (OCS) & sulphur dioxide		Mutations, spontaneous: Hydrogen bond resonance	10
(SO ₂) as broadened by methyl bromide (CH ₃ Br)	245	energy in DNA base pairs & spontaneous mutations	23
Microwave spectrum & dipole moment of nitroethane Microwave spectrum of chlorotrifluoroethylene	261 634		
Microwaves: Effect of external dc electric field on	202	N a	
absorption of microwaves in plasma MISHRA, P. C.: Electronic structure & spectra of some	383	NaCl crystals: Estimation of activation energy for the dissolution of NaCl crystals	71
hetero-substituted benzenes	691	NaH: Concentration of NaO & NaH molecules in the	748
Semi-empirical PPP-SCF-MO-CI calculations on some homo-substituted benzenes	70	earth's upper atmosphere	491
MISHRA, R. K.: The B-X band system of the GeCl	70	NaI: Standard partial molal compressibilities of aqueous solutions of NaI & KI at 25°C	683
molecule see Harish Chandra	825	NaO: Concentration of NaO & NaH molecules in the	
MISRA, S. C.: Basis of Misra's theoretical model for	548	earth's upper atmosphere	49'
classical liquids	448	NMR study of solid pyrene	66
Equation of state for fluids according to the new intermolecular potential	100	NAGARAJA RAO, K. see CHOCKALINGAM, (Mrs) MARY	74
New theory of monatomic liquids	188 775	JULIANA	74 ⁴ 29!
see NAIK, A. C Misro's (theoretical) model. Pagis of Misro's theoretical	676	NAGARAJAN, R.: Feedback error correlation measure	
Misra's (theoretical) model: Basis of Misra's theoretical model for classical liquids	448	as a performance index for a class of control systems NAGPAUL, K. K. see MEHTA, P. P	160 397
MITAL, R. L.: Calculation of diamagnetic suscept-		NAIK, A. C.: Extension of Kirkwood's analysis of cell	371
ibility of organic compounds MITRA, A. P.: Electromagnetic probing of the atmo-	177	model of intermediate density case	676
sphere: The mesosphere & the lower thermosphere	507	NAIR, K. P. R. see Ammini Amma, R see Baruah, G. D	115 239
Mixing, nonlinear: Nonlinear mixing in a double beam		see Chaudhry, A. K	52
device under Eulerian approximation in the one- dimensional case	1	see Dube, Prem Shankar see Jagadish Singh	680 614
Modak, Suresh G. see Kher, V. G	409	see Verma, V. N 68	2, 856
MOHANTY, B. S. see MOHANTY, H MOHANTY, H.: Franck-Condon factors, r-centroids &	423	NAMBI, K. S. V.: Thermoluminescence spectrum of a sample of natural CaF ₂ powder	280
intensity distributions in some band systems of BaF		Naphthol, α- & β-: Infrared spectra of α-chloronaphtha-	200
molecule	423	lene, α-naphthol, β-naphthol & β-methylnaphthalene	348
Molal compressibilities, partial: Standard partial molal	423	NARASIMHA RAJU, M. L.: Validity of ζ approximation of the 1400 keV beta decay in ¹⁴⁸ Ce	365
compressibilities of aqueous solutions of NaI & KI		NARASIMHAM, A. V.: Calculation of physical para-	
at 25°C Molecular association. Spin lattice relaxation time &	683	meters of binary alloys from their elastic constants Ultrasonic relaxation as a rate process	704 416
molecular association of pyridine in liquid mixtures	409	NARASIMHAM, K. V. see GARG, C. L	108
Molecular constants of diffuorodiazirine (CF_2N_2) Molecular constants of P_2I_4 molecule	142 151	NARAYANASWAMY, C. K. see MALLIKARJUNA RAO, K. NARSINGH DASS: Temperature dependence of refractive	100
Study of molecular constants: Dependence of	151	index of water in the region 0-40°C	55
rotational constants of polar diatomic molecules on electronegativity	4.0	NATARAJAN, S.: Variation of capacitance of perspex	174
Molecular orbital calculations: Free electron molecular	18	electrets due to thermo-electret formation NEMA, R. S.: Branching angles in the Lichtenberg	174
orbital calculations on the energy levels of some polyacene ions	202	figure studies of insulation breakdown	757
Semiempirical PPP-SCF-MO-CI calculations on	292	Neutrons: Angular distribution of neutrons from deuteron-bombarded lithium	108
some homo-substituted benzenes	70	Nichrome wire: Heat transfer from electrically heated	
Molecular orbitals: Suitability of molecular orbitals for band structure calculations: Empirical correlation		nichrome wire through boiling carbon tetrachloride Nikam, P. S. see Goswami, A 710,	854 798
of molecular properties	788	Nitrates: Dielectric properties of solutions of certain	
Molecular properties: Suitability of molecular orbitals for band structure calculations: Empirical correlation		nitrates in water	675
of molecular properties	788	Nitroanisoles, isomeric: Vibrational spectra of isomeric nitroanisoles	857
Molecules: Calculation of ionization cross-section of	, 00	Nitroethane: Microwave spectrum & dipole moment of	
molecules due to heavy particle impact on the basis of classical approximation	612	nitroethane	261
Monazite sands: Age determination of size fractions of	012	sistors at low current	656
monazite & zircon sands	103	Non-zero mass system: Reduction of generalized electromagnetic fields to the irreducible representa-	
of CaS: Bi phosphors	320	tion of Lorentz group for non-zero mass system	439
Morse function: Adjustment of Morse function	233	Noon bite-out: Suppression of the noon bite-out	
MUKHERJEA, R. N.: Dielectric properties of some vegetable oils in the radio frequency region	176	phenomenon at the geographic equator during sunspot maximum	113
MUKHOPADHYAY, S. see SEN, S. K	645	Normal coordinate analysis: Vibrational assignment &	
Mukunda Rao, M. see Sanyasi Raju, P. T	113	normal coordinate analysis of selenium tetrafluoride	625

PAGE

PAGE

Nuclear 'emulsions: Spurious scattering in nuclear		192Pt: Sum-peak studies & sum-coincidence studies	
emulsions	406	in ¹⁹² Pt	394
Track width in nuclear emulsions	468	PADHYE, M. R.: Near infrared spectrum of 2-, 3- &	0,1
Nuclear matter. Energy gap in nuclear matter &		4-aminopyridines & their deuterated analogues	479
velocity-dependent nucleon-nucleon interaction	302	see Bhujle, V. V	820
Nuclear quadrupole interactions of 35Cl in K2CuCl4.		PADMINI, A. R. K. L. see DHAKE, K. P	311
2H ₂ O	754	Pahwa, D. R. see Saksena, B. D	40
Nuclear tracks: Charge identification of nuclear tracks		Pair cross-sections of gamma rays	670
in photographic emulsions	652	PALCHOWDHURI, A. see DE, M	8
Nucleon-nucleon interaction: Energy gap in nuclear		Palladium: Electronic g _J values of palladium using	
matter & velocity-dependent nucleon-nucleon inter-		RS, jj & intermediate coupling schemes	172
action	302	Pande, U. S.: Gamma-gamma-gamma directional	
Nucleons, free: On the solution of wave equation with		correlation studies from the decay of 134Cs	401
periodic perturbation & magnetic resonance by free		PANDEY, A. N. see SANYAL, NITISH K	72
nucleons	127	see Singh, B. P	193
·		PANDEY, B. R. see TRIPATHI, G. N. R	762
		Pandey, Gopal Krishna see Krishnaji	261
		PANDEY, PREM CHAND: Theoretical evaluation of	
Objects, periodic triangular wave: Diffraction images		microwave spectral line-width parameters of carbonyl	
of periodic triangular wave objects formed by a		sulphide (OCS) & sulphur dioxide (SO ₂) as broad-	
circular aperture with Straubel pupil function	697	ened by methyl bromide (CH ₃ Br)	245
Ohmmeter, linear scale: A transistorized linear scale	0,,	PANDEY, V. M. see TRIPATHI, G. N. R PANDYA, N. S. see SHAH, B. S	762
ohmmeter	502	PANDYA, N. S. see Shah, B. S	852
Oils: Dielectric properties of some vegetable oils in the	505	PANDYA, I. P. see ASHOK KUMAR	42
	176 .	see Jaiswal, V. K	739
radio frequency region OJHA, S. P. see Tiwari, Prabhakar	21	Pant, D. D.: Decay times, intensities & their tem-	
One dimension quantum systems: Absence of crystal-		perature variation of luminescence of aqueous &	
line ordering in quantum systems of one dimension	61	deuterated solutions of europium ion	505
One- & two-dimensional classical systems: On the im-		PANT, H. C. see BHAWALKAR, D. D	849
possibility of crystalline ordering in one- & two-		see Chatterjee, U. K	488
dimensional classical systems	64	Paramagnetic centres: Colour centre studies in certain	
Optical absorption of the V^{3+} ion in complexes of D_{3h}		alkali sulphate crystals: Part III — Effect of optical	252
symmetry	·473`	& thermal bleaching on the paramagnetic centres	252
Optical system: Performance of an optical system		Parida, K. N. see Misra, S. C	188
using a circular aperture with an apodizing screen		PARTHASARADHI, K. see KHAYYOOM, A see RAMA RAO, J	845
illuminated by partially coherent light	780	See RAMA RAO, J	670
Optical & thermal bleaching: Colour centre studies in		Particle impact: Calculation of ionization cross-section	
certain alkali sulphate crystals: Part III — Effect		of molecules due to heavy particle impact on the	612
of optical & thermal bleaching on the paramagnetic		basis of classical approximation	012
centres	252	Particle track technique: Use of particle track technique	42
Optical transmission of quartz in the regions 3 & 6 µ	40	in studies on flames PATEL, A. R.: Change in morphology of dislocation	72
Orbital valence force field in tetrahedral molecules &		etch pits on the (001) surface of BaF ₂ .BaCl ₂	30
ions	72	PATEL, J. C.: Quadrupole moment & diamagnetic	30
Orbitals: A new look at the concept of the hybridization		susceptibility of H ₂ molecule	669
of bond orbitals	15	PATEL, M. M.: Emission spectrum of Bal molecule	681
'Order-disorder' theory: Evaluation of potential		Path length in space: An upper limit to the primary	001
energy constants using the 'order-disorder' theory	mo.		356
regarding the phenomenon of melting	78	deuteron flux & path length in space Ратнак, K. S. see Tripathi, G. N. R	762
Ordered phase of Co ₃ Sn ₂ : Crystal symmetry & cell	2/2	PATTABHI, VASANTHA: Crystal structure of D-phenyl-	.02
parameters of the ordered phase of Co ₃ Sn ₂	363	alanyl L-phenylalanine o-methoxy hydrobromide	795
Organic compounds: Calculation of diamagnetic	477	PAUL, SUMITA: Effect of a short-range three-body	.,,
susceptibility of organic compounds	177	interaction on the third order elastic constants of	
Organic liquids: A relation between adiabatic com-		alkali halides	307
pressibility & viscosity of organic liquids & molten electrolytes	111	Performance index: Feedback error correlation measure	
Oscillation frequency: Starting condition & the fre-	111	as a performance index for a class of control systems	160
quency of oscillation of the modified Clapp transistor		Periodic triangular wave objects: Diffraction images	
oscillator	110	of periodic triangular wave objects formed by a	
Oscillations, low frequency: Low frequency oscillations	110	circular aperture with Straubel pupil function	697
in thin platelets of cadmium sulphide	662	Perspex electrets: Variation of capacitance of perspex	
Oscillator, phase-locked: Discrimination of a phase-	002	electrets due to thermoelectret formation	174
locked oscillator against interfering tones	223	Perturbation, periodic: On the solution of wave equa-	
Output resistance of the super-alpha composite		tion with periodic perturbation & magnetic resonance	
transistor	50	by free nucleons	127
Oxalyl halides: Generalized mean-square amplitudes of		Phase characteristics of elf & vlf waves: Effect of	
vibration & Coriolis coupling constants of the oxalyl		lower ionosphere on attenuation & phase charac-	252
halides	180	teristics of elf & vlf waves	273
Oxygen, desorbed: Effect of degassing the desorbed		Phase difference $(\Delta - \Delta_0)$, relative: An anomalous	
oxygen on the photoconductive patterns obtained		behaviour in the relative phase difference $(\Delta - \Delta_0)$ in the reflected light from a thin film-covered sub-	
on electrophotographic zinc oxide layers	359	strate similar to anomalous dispersion	438
		Relative phase difference in thin film systems	853
		Phase-locked oscillator: Discrimination of a phase-	033
n		locked oscillator against interfering tones	223
P. molecule: Potential energy curves, r-centroids &		Phase-locking: A simple, accurate & automatic method	223
Franck-Condon factors for the pands of P. molecule	617	of measuring high resistances based on phase-locking	97
P.I. Molecular constants of P.I. molecule	151	Phase shift, differential: A direct method for the obser-	
PbCl: A-X band system of PbCl in the visible region	114	vation & measurement of differential phase shift on	
PPP-SCF-MO-CI calculations: Semi-empirical PPP-		reflection at a thin film-covered substrate & its effect	
SCF-MO-CI calculations on some homo-substituted		on the method of representation	207
benzenes	70	Phase shifters: Dual input all-pass phase shifters	46

Dhoro transition in and material	0.40		
Phase transition in copolymeric systems Phenyl methyl carbinol: Infrared & Raman spectra of	842	Potential curves: Franck-Condon factors & re-shifts	~ 4
phenyl methyl carbinol & dimethyl benzyl carbinol	144	from 'true' potential curves Potential energy constants: Evaluation of potential	74
D-Phenylalanyl L-phenylalanine o-methoxy hydro-		energy constants using the 'order-disorder' theory	
bromide: Crystal structure of p-phenylalanyl L-	70.0	regarding the phenomenon of melting	7
phenylalanine o-methoxy hydrobromide Phonon-electron interaction: Electron-phonon inter-	795	Potential energy curves, r-centroids & Franck-Condon	۷1
action in semiconductors	444.	factors for the bands of P ₂ molecule True potential energy curves for the bands of the	61
Phonon scattering in a linear chain containing an	500	Bi ₂ molecule	78
Phosphorescence decay of BaS: Bi phosphors	592 649	Potentials, solvable: Derivation of a few solvable	,
Phosphorescence spectra of CaS (Zr, Di) phosphors	117	potentials for the Schrödinger equation Powder photograph: Crystal structure of diphenyl-	6
Phosphors: Decay & thermoluminescence of CaS phos-		amine by powder photograph	85
phors activated with Zr & Mn Effect of didymium on the luminescence of CaS:	476	PRABHASHANKAR, V. see NEMA, R. S	75
Bi phosphors	320	Pradhan, B. R.: A new method of determining dynamic modulus of elasticity of a solid	48
Electroluminescence of CaS: Ag phosphors	294	PRADHAN, M. M. see SAKSENA, B. D	4
Phosphorescence decay of BaS: Bi phosphore	649	Prasad, Baliram see Srivastava, R. S	59
Photoconductive cells, sintered: Studies on sintered	117	Praseodymium sulphate: Temperature dependence of ultrasonic absorption in praseodymium sulphate	
photoconductive cells of cadmium sulphate	744	solutions	81
Photoconductive patterns: Effect of degassing the		Premaswarup. D. see Krishna Mohana Rao, P. S.	31
desorbed oxygen on the photoconductive patterns obtained on electrophotographic zinc oxide layers	359	see Subrahmanya Sastry, P Premchand, K. see Rama Rao, J	67 67
Photo-conductivity: Possible effects of water vapour		Propagation of If radio waves: Flare effects on If radio	0,
on the photo-conductivity of ZnS photo-conductors	59	waves propagated over a distance of about 1600 km	56
Photo-conductors: Possible effects of water vapour on the photo-conductivity of ZnS photo-conductors	59	Propagation of vlf electromagnetic waves through the	57
Photo-depolarization of magnetoelectrets of poly-		magnetosphere	31
crystalline sulphur	500	pseudocumidine	67
Photographic emulsions: Charge identification of nuclear tracks in photographic emulsions	652	Pupil function: Diffraction images of periodic triangular	
Photovoltaic effect, contact potential: Contact potential	032	wave objects formed by a circular aperture with Straubel pupil function	69
photovoltaic effect in silver sulphide layers	295	Puri, R. K.: An upper limit to the primary deuteron	
Piezo-optic birefringence: Influence of the annihilating dislocations on piezo-optic birefringence in some		flux & path length in space	35
alkali halide crystals	90	Puri, S. N.: Thermal emission & absorption spectra (F-X system) of CuCl molecule	75
Plasma: Effect of ethyl alcohol impurity on the rf		Purohit, H. D.: Dielectric behaviour of alcohols in	
conductivity of a low temperature gas discharge	493	benzene solution in the microwave frequency region	101
plasma Effect of external dc electric field on absorption	473	Pyramidal (XO ₃) ions: Light absorption in pyramidal XO ₂ ions in state of solution	199
of microwaves in plasma	383	XO ₃ ions in state of solution Pyrene: NMR study of solid pyrene	26
On the stability condition of flute instability in	E0 =	Pyridine: Spin lattice relaxation time & molecular	400
an inhomogeneous plasma Variation of attenuation of acoustic waves through	585	association of pyridine in liquid mixtures	409
plasma with ion-plasma frequency	86		
Plasma column, de glow discharge: Microwave measure-			
ment of electron collision frequency in a mercury vapour dc glow discharge plasma column	645	Quadrupole moment & diamagnetic susceptibility of	
Platelets, thin: Low frequency oscillations in thin		H ₂ molecule Quadrupole resonance frequencies: Temperature de-	669
platelets of cadmium sulphide	662	pendence of 35Cl pure quadrupole resonance fre-	
Pol, P. G.: Studies on thorium-substituted strontium flurophosphates	266	quencies in 3,4-dichloroaniline	255
Polar diatomic molecules: Study of molecular		Quantum systems: Absence of crystalline ordering in quantum systems of one dimension	61
constants: Dependence of rotational constants of	10	Quartz: Optical transmission of quartz in the regions	0,
polar diatomic molecules on electronegativity Polarizing effect of beam-splitter in two-beam inter-	18	3 & 6 µ	40
ferometers	814	Quinoline derivatives: Infrared absorption spectra of some quinoline derivatives	54
Polarizing field: Effect of polarizing field on the dipole	659	Somo quinomic derivatives	
orientation in electrets Polaron mobility studies in AgBr, AgCl & KBr at	039		
finite temperatures	694	40	
Polyacene ions: Free electron molecular orbital		T-centroids: Dissociation energy, Franck-Condon	614
calculations on the energy levels of some polyacene ions	292	factors & r-centroids of diatomic BiCl molecule Frank-Condon factors, r-centroids & intensity	614
Polyatomic gaseous mixtures: Thermal conductivity of	272	distributions in some band systems of BaF	
polyatomic gaseous mixtures at elevated tem-	0.4.4	molecule	423
peratures Polymerized products from ethylbenzene: Study of	844	Potential energy curves, r-centroids & Franck- Condon factors for the bands of P ₂ molecule	617
polymerized products formed from electrical dis-		re-shifts: Franck-Condon factors & re-shifts from	
charge through toluene & ethylbenzene	119	'true' potential curves	749
Polymerized products from toluene: Study of polymerized products formed from electrical discharge		RbCl: Lattice dynamics of RbCl rf conductivity: Effect of ethyl alcohol impurity on	380
through toluene & ethylbenzene	119	the rf conductivity of a low temperature gas dis-	
Polyvinyl chloride thermoelectrets: X-ray diffraction	0.54	charge plasma	493
studies on polyvinyl chloride thermoelectrets Pople's SCF-MO theory: Ionization potentials of some	851	rf voltage: Field emission microscopy, applying rf voltage to the insulator tip	847
alternant hydrocarbons from a simplified version of		RADHAKRISHNA SETTY, D. L. see GUPTA, L. C	754
Pople's SCF-MO theory	750	Radio emission, solar: Centimetre & decimetre solar	
Porous medium, unconsolidated: Formation factor of unconsolidated porous medium	742	bursts in relation to the phase of the S-component of solar radio emission	736
The state of the s			

PAGE

PAGE

Radio emissions: X-ray & radio emissions from the sun	801	Rate process: Ultrasonic relaxation as a rate process	416
	115	Rectification by tantalum-tantalum oxide-electrolyte	110
	678		504
COO TACABICH STACH	614	REDDY, B. M.: Electromagnetic probing of the atmo-	307
see Jagadish Singh		sphere: The upper ionosphere	516
COS TYLAND S N	196		516
See Thakur, S. N	21	REDDY, B. R. K. see RAMA RAO, C. G	764
See Tiwari, Prabhakar 612 677		Reflectance, diffuse: A note on Kubelka-Munk theory	221
see Tripathi, D. N 612, 677,		of diffuse reflectance	231
	352	Reflected light: An anomalous behaviour in the relative	
RAI, S. N.: Intramolecular force field & chemical	267	phase difference $(\Delta - \Delta_0)$ in the reflected light	
	367	from a thin film-covered substrate similar to ano-	
	761	malous dispersion,	438
RAJARAM, GIRIJA: F-region disturbances in the		Reflection: A direct method for the observation &	
	551	measurement of differential phase shift on reflection	
RAJESWARI, (Miss) H.: Crystal symmetry & cell para-	0.00	at a thin film-covered substrate & its effect on the	
	363	method of representation	207
RAJPUT, B. S.: Reduction of generalized electro-		Refractive index: Temperature dependence of re-	
magnetic field to irreducible representation of		fractive index of water in the region 0-40°C	55
	297	Refractive index of the ionosphere, complex: Effect of	
Reduction of generalized electromagnetic fields		smallness of values of parameters Zi & Ze on the	
to the irreducible representation of Lorentz		complex refractive index of the ionosphere for vit	
	439	propagation	387
RAMA RAO, C. G.: Near ultraviolet absorption spectra		Refractivities of vapours of some aromatic hydro-	
	764	carbon crystalline solids	828
	670	(non) Relativistic energy bands of double hexagonal	
RAMACHANDRA RAO, B. see AHMED, MD. IQHBAL	526	close-packed lanthanum	685
see Jogulu, C	537	Relativistic treatment: General relativistic treatment	
RAMACHANDRA RAO, S.: Ultrasonic interferometer		of some dense massive spheres	588
	848	Relaxation, thermal: Thermal relaxation & rate	
RAMACHANDRA ROW, Y. V. P. see Janardhanan		constant in water	673
PILLAI, K. K	831	Relaxation time, spin lattice: Spin lattice relaxation	
RAMAKRISHNA RAO, T. V.: Potential energy curves,		time & molecular association of pyridine in liquid	
r-centroids & Franck-Condon factors for the bands		mixtures	409
of P ₂ molecule	617	Resistance (high) measurement: A simple, accurate &	
True potential energy curves for the bands of the		automatic method of measuring high resistances	
Bi ₂ molecule	785	based on phase-locking	97
	831	Resonance energy: Hydrogen bond resonance energy	- 1
RAMAMOORTHY, K. see VARADACHARY, P. S	183	in DNA base pairs & spontaneous mutations	234
Raman spectra: Infrared & Raman spectra of phenyl		Rise characteristics: Rise & decay & spectral charac-	
methyl carbinol & dimethyl benzyl carbinol	144	teristics of ZnO: O photoconductor: Effects of	
Raman & infrared spectra of 2,6-diaminopyridine	761	temperature & pressure & nature of ambient atmo-	
Raman & infrared spectra of 2,5-dichlorotoluene	115	spheres	716
Raman & infrared spectra of hydrazinium hydro-		Rise-time in transistors: Prediction of rise-time in	
	342	transistors	165
Raman & infrared spectra of some complexes of		Rittner's potential function: Modified form of Rittner's	100
thiourea with zinc(II), cadmium(II) & mer-		potential function for alkali hydride molecules	139
	338	Rotating body: Calculation of clock rate difference	10)
	432	on the basis of Kerr metric of a rotating body	668
	149	Rotational constants: Study of molecular constants:	000
RAMANADHAM, M.: Refractivities of vapours of some		Dependence of rotational constants of polar diatomic	
	828	molecules on electronegativity	18
Thickness of the surface layer of some elementary		Roy, B. C.: On the computation of Laplace transform	10
	237	of the state transition matrix	217
RAMANAMURTY, Y. V.: Flare effects on lf radio waves		Roy, C. L.: A note on the electronic states of random	211
	569	systems	56
RAMANUJAM, P. S.: Low frequency vibration spectrum		Rubidium: Lattice dynamics of rubidium based on	20
	621	Toya's theory	594
	249	RUDRA WARRIER, M. K. See VENKATESWARLU, K	142
RAMASWAMY, K.: Infrared & Raman spectra of phenyl		**************************************	172
methyl carbinol & dimethyl benzyl carbinol	144		
Substituent effects on Jisc-H coupling constants			
in some vinyl compounds	173	3-component of solar radio emission: Centimetre &	
Vibrational assignment & normal coordinate ana-		decimetre solar bursts in relation to the phase of the	
	625	S-component of solar radio emission	726
	294	S_2 molecule: Isotope shift in the bands of $B^3\Sigma_{\mu} - X^3\Sigma_{\mu}$	736
	549	system of S ₂ molecule	50
Random systems: A note on the electronic states of		SCF-MO theory: Ionization potentials of some alternant	52
random systems	56	hydrocarbons from a simplified version of Pople's	
	144	SCF-MO theory	750
RANGARAJAN, N. See CHOCKALINGAM, (Mrs) MARY		SrI molecule: Analysis of the A-X band system of the	750
JULIANA 295, 7	744	SrI molecule	OFF
RAO, (Miss) D. V. R. A. see THAKUR, S. N 1	96	SrTiO ₃ single crystals: Dielectric behaviour of reduced	855
RAO, H. N. V. see JANARDHANAN PILLAI, K. K 8	331	SrTiO ₃ single crystals	0.4
Rare earth metals: Impurity diffusion of rare earth		SADOVNIKOV, B. I.: Absence of crystalline ordering in	81
metals in copper 3	324	quantum systems of one dimension	4.0
RASTOGI, R. G. see CHAKRAVARTY, S. C	541	SAKSENA, B. D.: Optical transmission of quartz in the	61
	548	regions 3 % 6 "	40
see Rajaram, Girija		regions 3 & 6 µ Sampooran Singh see Yadav, H. S	40
	33	SANCANA M. Evaluation of College	169
Rate constant: Thermal relaxation & rate constant in		SANKARANARAYANAN, P. E. see Thangarajan, M	232
	573	SANKARANAPAVANAN V N COO KRISHNAN P C	835

	PAGE	1	PAG
SANKARSHANA MURTHY, M. N.: Optical absorption of		SHAH, N. R. see PATEL, M. M	68
the V^{3+} ion in complexes of D_{3h} symmetry	473	Shah, S. G.: Ultraviolet emission spectrum of CaBr	00
SANT PRAKASH SEE LAL, J. B SEE TYAGI, TUHI RAM	581	molecule	11
see Tyagi, Tuhi Ram SANTARAM, C. see VAIDYAN, V. K 23.	555	Sharan, B.: Lattice dynamical study of cobalt	13
SANTARAM, C. see VAIDYAN, V. K 23. SANTOSH KUMAR see GHOSH, APARNA	685	Lattice dynamics & heat capacity of indium	33
SANWAL, D. N. see PANT, D. D	505	SHARMA, A. P. see GAUR, R. K 468, SHARMA, CHANDRA SHEKHAR: A new look at the	05
SANYAL, NITISH K.: Orbital valence force field in		concept of the hybridization of bond orbitals	1
tetrahedral molecules & ions	72	SHARMA, H. S. SEE PUROHIT, H. D	10
Sanyasi Raju, P. T.: Suppression of the noon bite-out phenomenon at the geographic equator during		SHARMA, KRISHAN K.: An empirical relationship	
sunspot maximum	113	between the vibrational frequency & the internuclear distance for diatomic hydrides	21
Sunspot maximum SARKAR, B. see NAGARAJAN, R	160	SHARMA, L. K.: Derivation of a few solvable potentials	24
SARKAR, S. K. see DAS GUPTA, M. K 734	l, 736	for the Schrödinger equation	6
SARMA, S. B. S. S.: Cosmic noise absorption measure-	530	SHARMA, L. N.: Photo-depolarization of magneto-	
ments in Delhi	529	electrets of polycrystalline sulphur	50
monazite & zircon sands	103	SHARMA, M. C. see SARMA, S. B. S. S SHARMA, R. P.: Interrelation between geomagnetic &	52
SASTRY, D. L. SEE NARASIMHA RAJU, M. L	365	ionospheric lunar tides at equator	53
Sastry, G. L. N.: Ultrasonic method of determining		Shashi Bhushan: Electroluminescence of ZnS: Cu, Zr	
ionic interaction in certain ethylene diamine tetra-	420	phosphors	36
acetic acid (EDTA)-metal chelates SASTRY, P. V.: On a relation between centre frequency	426	Shashidhar, M. A.: Electronic absorption spectra of 2- & 8-chloroquinoline vapours	17
& formation energy of vacancies in alkali halide		Infrared spectra of 2- & 8-chloroquinolines	76
crystals	372	Infrared spectra of some chloroxylenes in the	,,
Satellite transmissions: Electron content measurements		liquid state	48
from Faraday fading of satellite transmissions during	577	Shrinkages: Mean amplitudes of vibration & shrinkages	
low & high solar activity SATHIANANDAN, K. see LELE, A. B	151	in some hexafluoroanions of IVA & VA group elements	19
SATHYANARAYAN, S. G.: Growth of cavitation bubbles	101	SHUKLA, M. M.: Analysis of the A-X band system of	17
in water under-saturated with air	289	the SrI molecule	85
SATYANARAYANA, M. see VETURY, RAMAKRISHNARAO 20	7, 853	Shukla, R. V.: Concentration of NaO & NaH mole-	
SATYANARAYANA SARMA, M.: Ionospheric absorption measurements at 1.55 MHz by the URSI A3 method	523	cules in the earth's upper atmosphere	49
SAWHNEY, R. L. see SODHA, M. S	769	see Ghosh, S. N see Srivastava, A. N	80
SAXENA, A. P. see GAUR, S. C	86	SHUMOVSKY, A. S. see BOGOLIUBOV (Jr), N. N	12
SAXENA, A. P. see GAUR, S. C. SAXENA, J. P. see TANDON, S. P	182	Significant structure theory: Evaluation of thermo-	
SAXENA, M. K.: Angular distribution of neutrons from	108	dynamic properties of liquid hydrogen bromide using	
deuteron-bombarded lithium Scattering, incoherent: Effective atomic numbers	100	significant structure theory & a new method of	601
in alloys for incoherent scattering of gamma		evaluation of liquid volumes	60
rays	845	Significant structure theory & evaluation of	
Scattering of gamma rays: Effective atomic numbers	045	thermodynamic properties of liquid carbon	4 ~
in alloys for incoherent scattering of gamma rays Scattering of light into fundamental & second	845	disulphide Silver: Lattice dynamics of silver on the basis of	45
harmonic waves by materials of finite dimension	130	angular force models	33-
Scattering, spurious: Spurious scattering in nuclear		Temperature dependence of Young's modulus of	
emulsions Schrödinger equation: Derivation of a few solvable	406	copper, silver & gold	423
potentials for the Schrödinger equation	66	Silver sulphide layers: Contact potential photovoltaic effect in silver sulphide layers	29.
Second harmonic generation: Optimum second har-		SINGH, A.: Starting condition & the frequency of	-
monic generation in inhomogeneous semiconductors	769	oscillation of the modified Clapp transistor oscil-	
Second harmonic wave: Scattering of light into funda-		lator	110
mental & second harmonic waves by materials of finite dimension	130	SINGH, A. N.: Study of polymerized products formed from electrical discharge through toluene & ethyl-	
Selenium tetrafluoride: Vibrational assignment &	100	benzene	119
normal coordinate analysis of selenium tetrafluoride	625	Singh, B.: Emission spectrum of α-fluoronaphthalene	179
SELVARAJAN, A.: Raman & infrared spectra of hydra-	2.42		432
zinium hydrogen oxalate & dihydrazinium oxalate Raman & infrared spectra of some complexes of	342	Raman spectra of isomeric chlorostyrenes Singh, B. K. P. N. see Agrawal, V. D	146
thiourea with zinc(II), cadmium(II) & mer-		Singh, B. P.: Mean amplitudes of vibration & shrink-	20
cury(II)	338	ages in some hexafluoroanions of IVA & VA group	
Semiconductors: Electron-phonon interaction in		elements	193
semiconductors	444		40
Optimum second harmonic generation in inhomogeneous semiconductors	769	see Sanyal, Nitish K Singh, D. C. see Mathur, S. C	73 788
Semiempirical formula: A new semiempirical formula	, , ,	Singh, H. S. see Sanyal, Nitish K	72
for ionization cross-section of neutral atoms by			193
electron impact	843	SINGH, I. S. see SINGH, A. N	119
SEN, S. K.: Microwave measurement of electron collision frequency in a mercury vapour dc glow			116
discharge plasma column'	645		283 853
SEN GUPTA, N. D.: Electrons in a strong Coulomb		Singh, K.: Performance of an optical system using a	-
field	765	circular aperture with an apodizing screen illu-	
On the solution of wave equation with periodic perturbation & magnetic resonance by free		minated by partially coherent light	780
nucleons	127	See KAVATHEKAR, A. K SINGH, N. L. SEE DUBE, PREM SHANKAR	691
SEN Roy, N.: Dual input all-pass phase shifters	46	Singh, O. N. see Srivastava, M. P	28
SHAH, B. S.: Effects of some parameters on facet	0.77	Singh, R. D.: Infrared spectra of α-chloronaphthalene,	
formation in bismuth SHAH, H. M. see BHATT, V. P	852	α-naphthol, β-naphthol & β-methylnaphthalene	34:
SHAH, II. M. SEE BHATT, V. P	236	see Singh, B	A .

	PAGE	1	LOL
SINGH, R. N. see RAJPUT, B. S	439	Spin lattice relaxation time & molecular association of	
see Singh, R. P	573	pyridine in liquid mixtures	409
SINGH, R. P.: Propagation of vlf electromagnetic waves through the magnetosphere	573	Srinivasacharya, K. G.: Near ultraviolet absorption	100
	30	spectrum of 2-bromo ethyl benzene SRINIVASAN, R.: ESR in copper anti-pyrene per-	182
see Patel, A. R Singh, R. S. see Singh, R. D	348	chlorate complex	817
see Singh, S. Nath	641	SRIRAMACHANDRA MURTY, M. see RAMA RAO, J	670
SINGH, S. see SRIVASTAVA, B. N 59, 465,	716	Srivastava, A. N.: Atomic hydrogen emissions in the	
SINGH, S. NATH: Effect of chlorination of the near	641	day-glow	214
ultraviolet absorption spectra of 9,10-anthraquinone Singh, S. P.: A-X band system of PbCl in the visible	011	See GHOSH, S. N	806 497
region	114	SRIVASTAVA, B. B.: Effect of band limit frequencies	.,,
Singh, S. R.: Infrared absorption spectrum of benzoyl		over the most probable duration between zero	
chloride	116	crossings	269
Single crystals: Dielectric behaviour of reduced SrTiO ₃ single crystals	81	SRIVASTAVA, B. C. see JAISWAL, V. K	739
Epitaxial growth of cuprous selenide films on	01	SRIVASTAVA, B. N.: Conductivity measurements from the study of dielectric loss in anthracene	465
single crystals	710	Possible effects of water vapour on the photo-	
Growth features on the cleavage face of antimony	236	conductivity of ZnS photo-conductivity	59
single crystals Optical absorption spectra of diluted Cu(KSO ₄) ₂ .	230	Rise & decay & spectral characteristics of ZnO:	
6H ₂ O single crystals diluted with Zn(KSO ₁) ₁ .		O photoconductor: Effects of temperature & pressure & nature of ambient atmospheres	716
6H-0	345	SRIVASTAVA, K. G.: Structure-sensitive magnetoelectric	
SINHA, A. P. B. see MULAY, V. N	412	effect in chromium oxide single crystal as studied	
see Pol, P. G see Sankarshana Murthy, M. N	266 473	by dielectric constant technique	755
SITARAMASWAMY, P.: Ultrasonic absorption studies in	175	SRIVASTAVA, K. M. see BAJWA, G. S.:	585
	598	Srivastava, M. P.: n-II* electronic emission spectra of m- & p-methoxy benzaldehyde vapours	285
see Mallikharjunaswamy, K 58,		see Singh, S. R	116
SIVAKUMAR, K. V. see Subrahmanyam, S. V	683	see Singh, S. R see Srivastava, S. C see Verma, V. N	857
SIVARAMAKRISHNAN, V. see SASTRI, C. S	103 252	See Verma, V. N	856
SOBHANADRI, J. see HARIHARAN, N SODHA, M. S.: Optimum second harmonic generation in	24 J 24	SRIVASTAVA, R. S.: Lattice dynamics of rubidium	594
inhomogeneous semiconductors	769	based on Toya's theory see Keshaw Singh	334
Solar activity: Electron content measurements from		SRIVASTAVA, RAMJI see SRIVASTAVA, K. G	755
Faraday fading of satellite transmissions during low	577	Srivastava, S. C.: Dielectric relaxation in 1,1-difluoro	101
& high solar activity Solar activity variations: Ionospheric indication of	511	1,2,2-trichloroethane SRIVASTAVA, S. C.: Vibrational spectra of isomeric	191
short-time solar activity variations	544	nitroanisoles	857
Solar cycle, 11-year: Recurrence of 10.7 cm solar flux	724	Srivastava, S. K.: Study of irregularities in the F-	
& of sunspot activity over the 11-year solar cycle Solar flux: Recurrence of 10.7 cm solar flux & of	734	region of the ionosphere	560
sunspot activity over the 11-year solar cycle	734	SRIVASTAVA, SANTOSH KUMAR: Dielectric relaxation studies in chloral at X-band microwave frequency	846
Solar radio emission: Centimetre & decimetre solar		SRIVASTAVA, SHYAM LAL SEE PANDEY, PREM CHAND	245
bursts in relation to the phase of the S-component of	726	see Srivastava, Santosh Kumar	846
solar radio emission Solid: A new method of determining dynamic modulus	736	SRIVASTAVA, SURAJ LAL: Vibrational spectra of 2,3-, 2,4- & 2,5-dichlorophenols	237
of elasticity of a solid	486	2,4- & 2,5-dichlorophenols Stability condition: On the stability condition of flute	23
Solids, crystalline: Refractivities of vapours of some	000	instability in an inhomogeneous plasma	585
aromatic hydrocarbon crystalline solids	828	State transition matrix: On the computation of Laplace	011
Solubility parameters: Relation between compressibility parameters & solubility parameters of some		transform of the state transition matrix Straubel pupil function: Diffraction images of periodic	217
non-polar & nearly non-polar liquids	185	triangular wave objects formed by a circular	
Solution dielectric relaxation time: Calculation of di-		aperture with Straubel pupil function	697
electric relaxation time in solution using Frölich's	106	Strontium fluorophosphates, thorium-substituted:	
equation Solvent shifts: Dipolar contribution to intermolecular	106	Studies on thorium-substituted strontium fluoro- phosphates	266
forces & the infrared solvent shifts	792	phosphates Subrahmanya Sastry, P.: Dielectric properties of	200
Somayajulu, V. V. see Lalmani	564	solutions of certain nitrates in water	675
SOMAYAJULU, Y. V. see IYAGI, IUHI RAM 555,	577 406	SUBRAHMANYAM, S. V.: Standard partial molal com-	
SOOD, P. M.: Spurious scattering in nuclear emulsions SOONAWALA, M. F.: Internal pressure of water	753	pressibilities of aqueous solutions of NaI & KI at 25°C	683
SOROKINA, E. M.: On the impossibility of crystalline	,	SUBRAMANIAN, C. K. see Srinivasan, R	81
ordering in one- & two-dimensional classical systems	64	Subramanian, V. see Janardhanan Pillai, K. K.	83
see Sadovnikov, B. I	61	SUBRAMANYAM, S. V. see SOVANI, ARUNA V	304
Sound attenuation: Expression for attenuation of sound due to thermal & viscous losses from equation		Substituent effects on $J_{^{12}C-H}$ coupling constants on some vinyl compounds	173
of state	454	Substrate, thin film-covered: An anomalous behaviour	
SOVANI, ARUNA V.: Decoupled elastic wave propagation	201	in the relative phase difference $(\Delta - \Delta_0)$ in the	
in crystals Space: An upper limit to the primary deuteron flux &	304	reflected light from a thin film-covered substrate	120
path length in space	356	similar to anomalous dispersion Sulphur dioxide: Theoretical evaluation of microwave	438
Space group: Unit cell dimensions & space group of		spectral line-width parameters of carbonyl sulphide	
2'-methyl-4'-nitroazobenzene-2-sulphenyl cyanide	112	(OCS) & sulphur dioxide (SO ₂) as broadened by	
Spectral characteristics: Rise & decay & spectral characteristics of ZnO: O photoconductor: Effects		methyl bromide (CH ₃ Br) Sulphur, polycrystalline: Photo-depolarization of mag-	24.
of temperature & pressure & nature of ambient		netoelectrets of polycrystalline sulphur	500
atmospheres	716	Sum-coincidence studies: Sum-peak & sum-coincidence	
Spectral coherence in holography	8	studies in 192Pt	394
Spheres, dense massive: General relativistic treatment of some dense massive spheres	588	Sum-peak & sum-coincidence studies in 182Pt Sun: X-ray & radio emissions from the sun	394 801

SUNDARARAJAN, K. see JANARDHANAN PILLAI, K. K. SUNDER, R. S. see BHATTACHARYYA, J. C	831 544	Significant structure theory & evaluation of thermodynamic properties of liquid carbon	
Sunspot activity: Recurrence of 10.7 cm solar flux &		disulphide	453
of sunspot activity over the 11-year solar cycle Sunspot maximum: Suppression of the noon bite-out	734	Thermo-electret formation: Variation of capacitance of perspex electrets due to thermo-electret forma-	
phenomenon at the geographic equator during	9-6	tion	174
sunspot maximum Super-alpha composite transistor: Output resistance	113	Thermoelectrets, polyvinyl chloride: X-ray diffraction studies on polyvinyl chloride thermoelectrets	853
of the super-alpha composite transistor	50	Thermoluminescence: Decay & thermoluminescence of	03.
Suresh Chandra see Krishnaji Surface layer: Thickness of the surface layer of some	634	CaS phosphors activated with Zr & Mn	476
elementary liquids	237	Thermoluminescence spectrum of a sample of natural CaF ₂ powder	280
Suri, K. K.: Sum-peak studies & sum-coincidence	204	Thermosphere, lower: Electromagnetic probing of the	
SURI, P. R. see MATHUR, S. C	394 345	atmosphere: The mesosphere & the lower thermosphere	507
SURYANARAYANA, C. V. see Chockalingam, (Mrs) Mary	711	Thin film cold cathode	36
JULIANA see JANARDHANAN PILLAI, K. K see Kuppusami, I.	831	Thin film-covered substrate: An anomalous behaviour in the relative phase difference $(\Delta - \Delta_0)$ in the	
	00)	reflected light from a thin film-covered substrate	420
Suryanarayana Rao, K. see Shashidhar, M. A. 178, Swamy, K. N. see Gopala Rao, R. V. 78, 451, 601, 604,		similar to anomalous dispersion A direct method for the observation & measure-	438
		ment of differential phase shift on reflection at	
T		a thin film-covered substrate & its effect on the	207
ALATI, M. C. see BHATT, V. P	236	method of representation \cdots Thin film structure of In_1Te_2 \cdots	258
TALWAR, I. M.: X-ray diffraction studies on polyvinyl	851	Thin film systems: Relative phase difference in thin film systems	853
chloride thermoelectrets see Khanna, S. L	659	Thiourea: Raman & infrared spectra of some complexes	
Tandon, Kamla: Light absorption in halide ions in state of solution	154	of thiourea with zinc(II), cadmium(II) & mercury(II) Thirring's model: On asymptotically exact solution of	338
see Tandon, S. P	199	Thirring's model Thorium-substituted strontium fluorophosphates:	121
Tandon, S. P.: A comparative assessment of the effectiveness of different diffuse reflectance parameters		Thorium-substituted strontium fluorophosphates: Studies on throium-substituted strontium fluoro-	
in absorption studies	362	phosphates	266
Infrared absorption spectrum of N-acetonyl quinolinium iodide	182	Three-body interaction: Effect of a short-range three- body interaction on the third order elastic constants	
Infrared absorption spectra of some quinoline	102	of alkali halides	307
derivatives Light absorption in pyramidal XO ₃ ions in state	54	Thumba: Ionospheric irregularities & their drifts at Thumba during 1964-68	548
of solution	199	Thunder squalls: Enhancement of fEs & Es-multiples	
Note on Kubelka-Munk theory of diffuse re-	231	with the incidence of thunder squalls Time signals, ATA: On the accuracy of ATA time	546
flectance Study of molecular constants: Dependence of	231	signals	503
rotational constants of polar diatomic molecules	18	TIRUVENGANNA RAO, P. see RAMA RAO, C. G TIWARI, PRABHAKAR: Electron impact ionization cross-	764
on electronegativity see Tandon, Kamla	154	sections of ionized atoms	21
Tantalum-tantalum oxide-electrolyte system: Recti-		Toluene: Study of polymerized products formed from	- 119
fication by tantalum-tantalum oxide-electrolyte system	504	electrical discharge through toluene & ethylbenzene Toya's theory: Lattice dynamics of rubidium based	
TANTRY, B. A. P. see GUPTA, S. P	273	on Toya's theory	594 468
see Lalmani see Srivastava, S. K	564 560	Track width in nuclear emulsions Transducer: Ultrasonic interferometer with lead zirco-	
Temperature & pressure: Rise & decay & spectral		nate titanate as transducer Transistor: Output resistance of the super-alpha	848
characteristics of ZnO: O photoconductor: Effects of temperature & pressure & nature of ambient		composite transistor	50
atmospheres	716	Transistor oscillator, Clapp: Starting condition & the frequency of oscillation of the modified Clapp	
Temporal behaviour of light emission from gallium arsenide injection lasers	849	transistor oscillator	110
Tetrahedral molecules: Orbital valence force field in	72	Transistor voltage amplifier: Analysis of a composite transistor voltage amplifier circuit	33
tetrahedral molecules & ions Tetramethyl ammonium bromide: Low frequency	72	Transistorized astable multivibrator: Analysis of a	33
vibration spectrum of tetramethyl ammonium	621	transistorized astable multivibrator working in the	835
Thakur, S. N.: Extremal properties of force constants	621	unsaturated mode Transistorized linear scale ohmmeter	502
in octahedral hexafluorides see Rai, S. N	196	Transistors: Low frequency noise of transistors at low	656
THANGARAJAN, M.: Analysis of a transistorized astable	367	current Prediction of rise-time in transistors	165
multivibrator working in the unsaturated mode	835	TREHAN, P. N. see Suri, K. K Trihalides of antimony & bismuth: Intramolecular	394
Theoretical evaluation of microwave spectral linewidth parameters of carbonyl sulphide (OCS) &		force field & chemical bonding in tribalides of	
sulphur dioxide (SO ₂) as broadened by methyl	245	antimony & bismuth TRIPATHI, D. N.: Calculation of ionization cross-section	367
bromide (CH ₃ Br) Thermal conductivity of polyatomic gaseous mixtures	245	of molecules due to heavy particle impact on the	19
at elevated temperatures	844	basis of classical approximation Drawin's formula & ionization cross-section of	612
Thermal losses: Expression for attenuation of sound due to thermal & viscous losses from equation of		cesium	677
state	454	New semiempirical formula for ionization cross- section of neutral atoms by electron impact	843
Thermal relaxation & rate constant in water Thermodynamic properties: Evaluation of thermo-	673	TRIPATHI, G. N. R.: Vibrational assignment of the	013
dynamic properties of liquid hydrogen bromide	600	infrared spectra of 2,6-dichloro- & 2,6-dibromo-	762
using significant structure theory	609	benzoquinones	702

PAGE

PAGE

Vibrational assignment of the near ultraviolet		Franck-Condon factors & re-shifts from 'true'	
spectrum of m-fluorophenol in vapour state	157	potential curves	749
TRIPATHI, L. N.: Near ultraviolet absorption spectrum		VANVARI, N. see BHAGAVAT, G. K	749 383
of p-bromoaniline in the vapour phase	730	Vapour phase deposits: Study of vapour phase	
TYAGI, TUHI RAM: Characteristics of large-scale		deposits of GeTe & GeSe	798
ionospheric irregularities	555	Vapours: Refractivities of vapours of some aromatic	
Electron content measurements from Faraday		hydrocarbon crystalline solids	828
fading of satellite transmissions during low &		VARADACHARY, P. S.: Relation between compressibility	
high solar activity	577	parameters of some non-polar & nearly non-polar	
		liquids	185
		VARMA, R. C. see SHARMA, L. K	66
U-O bond: Force constants & bond distances for the		Vegetable oils: Dielectric properties of some vegetable	
If O bond of granul salts	108	oils in the radio frequency region	176
U-O bond of uranyl salts	108	Velocity-dependent nucleon-nucleon interaction:	
URSI A3 method: Ionospheric absorption measurements at 1.55 MHz by the URSI A3 method	523	Energy gap in nuclear matter & velocity-dependent	200
Ultrasonic absorption: Temperature dependence of	343	Nenkata Seshalah, V. see Gopala Rao, R. V	302
ultrasonic absorption in praseodymium sulphate		**	454 795
solutions	811	VENKATESWARLU, K.: Generalized mean-square ampli-	193
Ultrasonic absorption studies in liquid mixtures	598	tudes of vibration & Coriolis coupling constants of	
Ultrasonic interferometer with lead zirconate titanate	0,0	the oxalyl halides	180
as transducer	848	Molecular constants of difluorodiazirine (CF ₂ N ₂)	142
Ultrasonic method of determining ionic interaction in		VENKATRAMANI, N.: Field emission microscopy,	7 100
certain ethylene diamine tetraacetic acid (EDTA)-		applying rf voltage to the insulator tip	847
metal chelates	426	VERMA, D. S. see GUPTA, V. D	842
Ultrasonic parameters & hydration numbers in aqueous		VERMA, G. S. see ANIL KUMAR	444
solutions of electrolytes	311	see Joshi, Y. Р	592
Ultrasonic relaxation as a rate process	416	VERMA, M. P. see LAL, H. H	380
Ultraviolet absorption spectra: Effect of chlorination		VERMA, V. N.: Infrared spectra of 2-chloro-4-nitro-	
in the near ultraviolet absorption spectra of 9,10-	1000	aniline & 4-chloro-2-nitroaniline	682
anthraquinone	641	Ultraviolet absorption spectrum of benzoyl	
Near ultraviolet absorption spectrum of p-bromo-	720	chloride in vapour phase	856
aniline in the vapour phase	730	VETURY, RAMAKRISHNARAO: Anomalous behaviour in	
Near ultraviolet absorption spectrum of 2-bromo	100	the relative phase difference $(\Delta - \Delta_0)$ in the reflected	
ethyl benzene	182	light from a thin film-covered substrate similiar to	
Near ultraviolet absorption spectra of deuterated &	820	anomalous dispersion	438
non-deuterated aminopyridines in vapour phase	020	Direct method for the observation & measurement	
Near ultraviolet absorption spectra of 3,4- & 2,6-	764	of differential phase shift on reflection at a thin	
dichloroanilines Near ultraviolet absorption spectrum of 2,4-	701	film-covered substrate & its effect on the method	207
dimethylphenol vapour	239	of representation	207
Ultraviolet absorption spectrum of benzoyl	20)	Relative phase difference in thin film systems Vibration constants: Relation between vibration	853
chloride in vapour phase	856	constants of homonuclear & heteronuclear diatomic	
Vibrational assignment of the near ultraviolet	000		752
spectrum of m-fluorophenol in vapour state	157	Vibration, mean amplitudes of: Mean amplitudes of	134
Ultraviolet bands: The ultraviolet bands (C-system)		vibration & shrinkages in some hexafluoroanions of	
of CdBr molecule	240	IVA & VA group elements	193
Ultraviolet emission spectrum of CaBr molecule	118	Mean amplitudes of vibration of ketene, methyl	1,5
Unit cell dimensions & space group of 2'-methyl-4'-		ketene & dimethyl ketene	629
nitroazobenzene-2-sulphenyl cyanide	112	Vibration, mean-square amplitudes of: Generalized	
UNNIKRISHNAN NAYAR, V.: Force field & Coriolis	0.45	mean-square amplitudes of vibration & Coriolis	
coupling coefficients of carbonyl cyanide	840	coupling constants of the oxalyl halides	180
Unsaturated mode of multivibrator: Analysis of a		Vibration spectrum, low frequency: Low frequency	
transistorized astable multivibrator working in the	025	vibration spectrum of tetramethyl ammonium	
unsaturated mode	835 52	bromide	621
UPADHYA, K. N. SEE CHAUDHRY, A. K	680	Vibrational assignment & normal coordinate analysis of	
ou Dobb, I what Office	352	selenium tetrafluoride	625
see RAI, J. N Uranyl salts: Force constants & bond distances for the	552	Vibrational assignment of the infrared spectra of	2/2
U-O bond of uranyl salts	108	2,6-dichloro- & 2,6-dibromo-benzoquinones Vibrational assignment of the near ultraviolet	762
U-O bond of dranyl saits	200	spectrum of <i>m</i> -fluorophenol in vapour state	157
		Vibrational frequency: An empirical relationship	157
		between the vibrational frequency & the inter-	
V ³⁺ ion: Optical absorption of the V ³⁺ ion in com-		nuclear distance for diatomic hydrides	241
V ion: Optical absorption of the V ³⁺ ion in com-		Vibrational spectra of 2,3- 2,4- & 2,5-dichlorophenols	237
plexes of D3h symmetry	473	Vibrational spectra of isomeric nitroanisoles	857
vlf electromagnetic waves: Propagation of vlf electro-		Vibrational spectra of mesidine & pseudocumidine	678
magnetic waves through the magnetosphere	573	Vibrational temperature, effective: Determination of	0.0
vlf emissions: Very low frequency (vlf) emissions	= - 1	effective vibrational temperature of CN violet band	
at low latitudes	564	system in benzonitrile discharge	680
vlf propagation: Effect of smallness of values of para-		VIJAY KUMAR: Hydrogen bond resonance energy in	
meters Z_i & Z_e on the complex refractive index of	287	DNA base pairs & spontaneous mutations	234
the ionosphere for vlf propagation vlf waves: Effect of lower ionosphere on attenuation &	387	Vinyl compounds: Substituent effects on Juc-H coupl-	
phase characteristics of elf & vlf waves	273	ing constants in some vinvl compounds	173
Vacancies: On a relation between centre frequency &	213	Viscosity: A relation between adiabatic compres-	
formation energy of vacancies in alkali halide crystals	372	sibility & viscosity of organic liquids & molten	
VACHASPATI see Kor, JAYANTI	130	electrolytes	111
VAGHARI, D. J.: Development of unusual etch pits	11.	Viscous losses: Expression for attenuation of sound due	100
in bismuth	672	to thermal & viscous losses from equation of state Visible region: A-X band system of PbCl in the visible	454
VAIDYAN, V. K.: Adjustment of Morse function	233	region . A-A band system of PbCl in the visible	114
		101	114

	211010		A ALCIA
A new band system of BiSe molecule in the visible	F4	YAMDAGNI, R.: A new band system of BiSe molecule	
region Voltage amplifier: Analysis of a composite transistor	51	in the visible region YOGENDRA KUMAR: Relation between vibration cons-	51
voltage amplifier circuit	33	tants of homonuclear & heteronuclear diatomic molecules	752
		Young's modulus: Temperature dependence of Young's modulus of copper, silver & gold	428
Waltair: Study of lower ionospheric absorption of		modulus of copper, silver & gold	+20
cosmic radio noise power on 28.6 MHz at Waltair	526		
Water: Growth of cavitation bubbles in water under- saturated with air	289		
Internal pressure of water	753	$Z_i \& Z_c$: Effect of smallness of values of parameters	
Temperature dependence of refractive index of	e e	Z_i & Z_e on the complex refractive index of the	387
water in the region 0-40°C Thermal relaxation & rate constant in water	55 673	ionosphere for vlf propagation $Zn(KSO_4)_2.6H_2O$: Optical absorption spectra of diluted	301
Water vapour: Possible effects of water vapour on the		Cu(KSO ₄) ₂ .6H ₂ O single crystals diluted with	
photo-conductivity of ZnS photo-conductors Studies on the after-glow of water vapour	59 806	Zn(KSO ₄) ₂ .6H ₂ O	345
Wave equation: On the solution of wave equation with	800	ZnO: O photoconductor: Rise & decay & spectral characteristics of ZnO: O photoconductor: Effects	
periodic perturbation & magnetic resonance by free	1.0	of temperature & pressure & nature of ambient	
nucleons	127	atmospheres ZnS: Cu, Zr phosphors: Electroluminescence of ZnS:	716
magneto-ionic theory	436	Cu, Zr phosphors	364
Wave propagation, decoupled elastic: Decoupled		ZnS photo-conductors: Possible effects of water vapour	
elastic wave propagation in crystals Wave (plane) shapers: Plane wave shapers by metal-	304	on the photo-conductivity of ZnS photo-conductors Zr: Decay & thermoluminescence of CaS phosphors	59
explosive combination	169	activated with Zr & Mn	476
		Phosphorescence spectra of CaS(Zr, Di) phosphors	117
77		ZAIDI, Z. H. see LAKSHMI NARAIN Zero crossings: Effect of band limit frequencies over	292
AO3 ions: Light absorption in pyramidal XO3 ions		the most probable duration between zero crossings	269
in state of solution X-band: Dielectric relaxation studies in chloral at	199	Zeta approximation: Validity of zeta approximation of the 1400 keV beta decay in ¹⁴³ Ce	365
X-band microwave frequency	846	Zinc(II): Raman & infrared spectra of some complexes	
X-band microwave frequency X-ray diffraction studies on polyvinyl chloride		of thiourea with zinc(II), cadmium(II) & mercury(II)	338
thermoelectrets	851 801	Zinc oxide layers: Effect of degassing the desorbed oxygen on the photoconductive patterns obtained	
array a radio chipsions from the sun	001	on electrophotographic zinc oxide layers	359
		Zircon sands: Age determination of size fractions of	102
YADAV, H. S.: Plane wave shapers by metal-explosive		monazite & zircon sands Zirconium & copper activated ZnS phosphor: Electro-	103
combination	169	luminescence of ZnS: Cu, Zr phosphors	364